

**KSE INSTITUTE RUSSIA CHARTBOOK**  
**BUDGET HIT BY SANCTIONS**

**MARCH 2023**

## Executive Summary

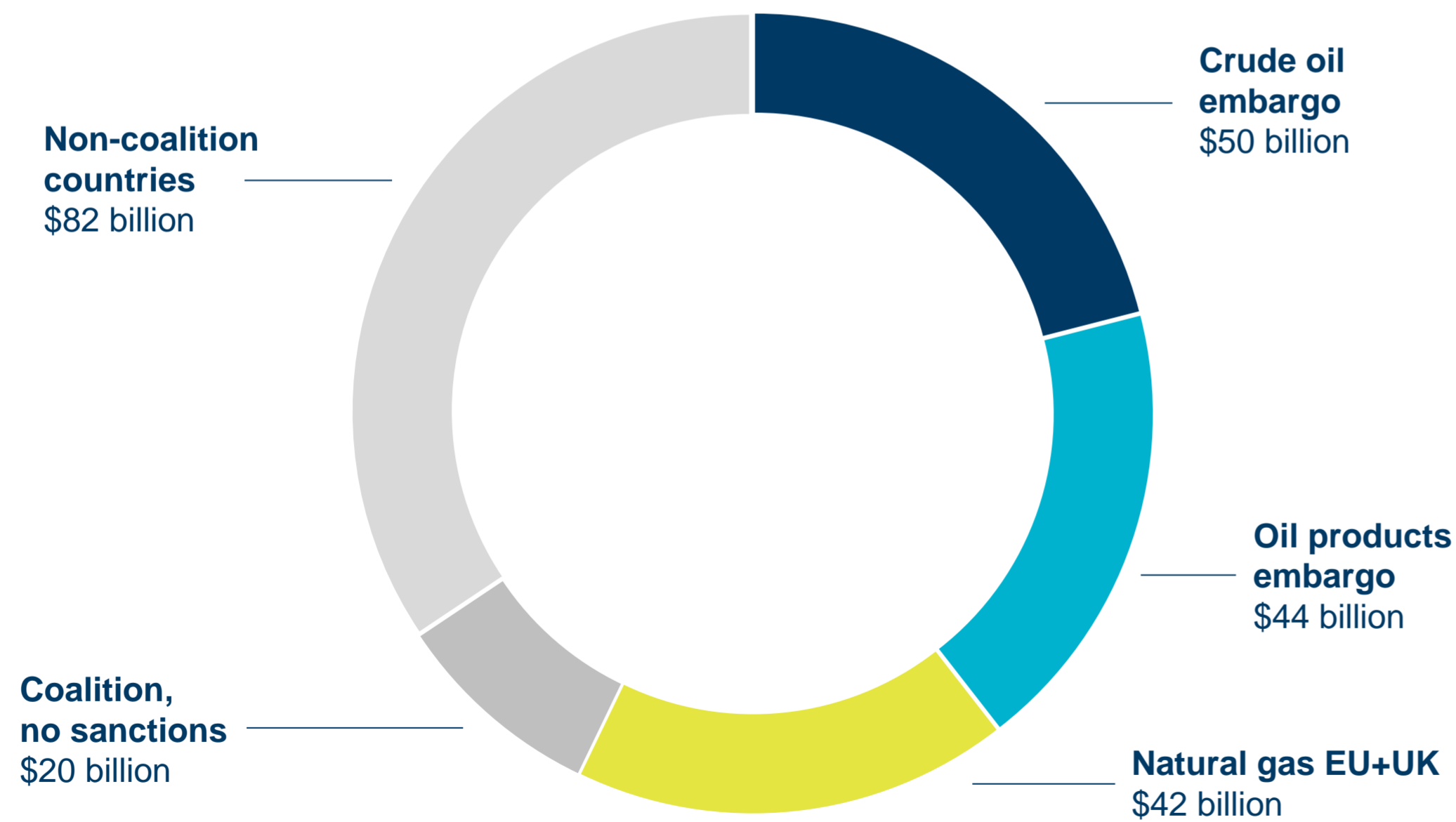
- 1. Important measures targeting Russian energy exports are beginning to bite.** With the EU's embargo on crude oil in place since December 5, 2022, and on oil products since February 5, 2023, Russian exports are coming under increasing pressure. In addition, prices have moderated—supported by the G7 price cap—and Europe has moved away from Russian gas. [READ MORE](#)
- 2. Expanded sanctions could exacerbate these pressure significantly.** We estimate that new restrictions—including lower price caps on crude oil (\$50/barrel) and oil products (in line with the crude cap) as well as bans on Russian LNG and pipeline gas not sent via Ukraine—would reduce oil and gas export earnings but additional \$56 billion in 2023 and \$66 billion in 2024. [READ MORE](#)
- 3. The impact from a less supportive external environment on government finance deepens.** Russia's fiscal deficit reached 2.6 trillion rubles in January-February alone—or close to 90% of the full-year deficit planned in the budget. Revenues are under pressure, in particular oil and gas receipts, while the war drives up expenditures. A supplementary budget is inevitable. [READ MORE](#)
- 4. Higher deficits will put significant additional pressure on financing.** At the pace of 2022Q4, Russia will use up the NWF's liquid assets by the end of this year. With room for fiscal adjustment severely limited as war expenditures and social spending are unlikely to be touched, MinFin will need to heavily rely on domestic borrowing—the same way it did in late 2022. [READ MORE](#)
- 5. Domestic borrowing to pick up sharply in coming weeks.** New OFZ issuance has fallen from the record level of 2.8 trillion rubles in 2022Q4, but we expect numbers to increase again as persistently high deficits require fresh funding. Importantly, and despite smaller issuance, auctions already show some stress—with bids unsatisfactory at times and yields creeping up. [READ MORE](#)
- 6. Russia's banking system will have to bear most of the government funding burden.** Foreign investors, which used to play a big role in the OFZ market, have essentially disappeared. Thus, domestic banks will need to buy up new OFZ issuance. This is an area where stricter sanctions could exacerbate already emerging challenges and put pressure on the Russian state. [READ MORE](#)
- 7. Sanctions on Russia's central bank have severely limited access to reserves.** As a less supportive weighs on the ruble—Russia's currency has depreciated by more than 35% since the fall—and inflationary pressure rise again, limited resources will create a dilemma and force painful decisions, including an interest rate hike of around 300bps in 2023H1. [READ MORE](#)

**The external environment has  
been worsening considerably.**

## Measures targeting Russian oil and gas exports are biting.

- Sanctions on energy began in earnest with the EU embargo on crude oil (Dec. 5, 2022) and oil products (Feb. 5, 2023).
- Together with Europe’s exit from Russian gas, a significant share of pre-invasion exports are now impacted.
- The biggest gaps in the energy sanctions regime are East Asian democracies as well as China, India, and Turkey.

### Composition of 2021 oil and gas exports



Source: Federal Customs Service, UN Comtrade, KSE Institute

### Oil and gas sanctions coverage

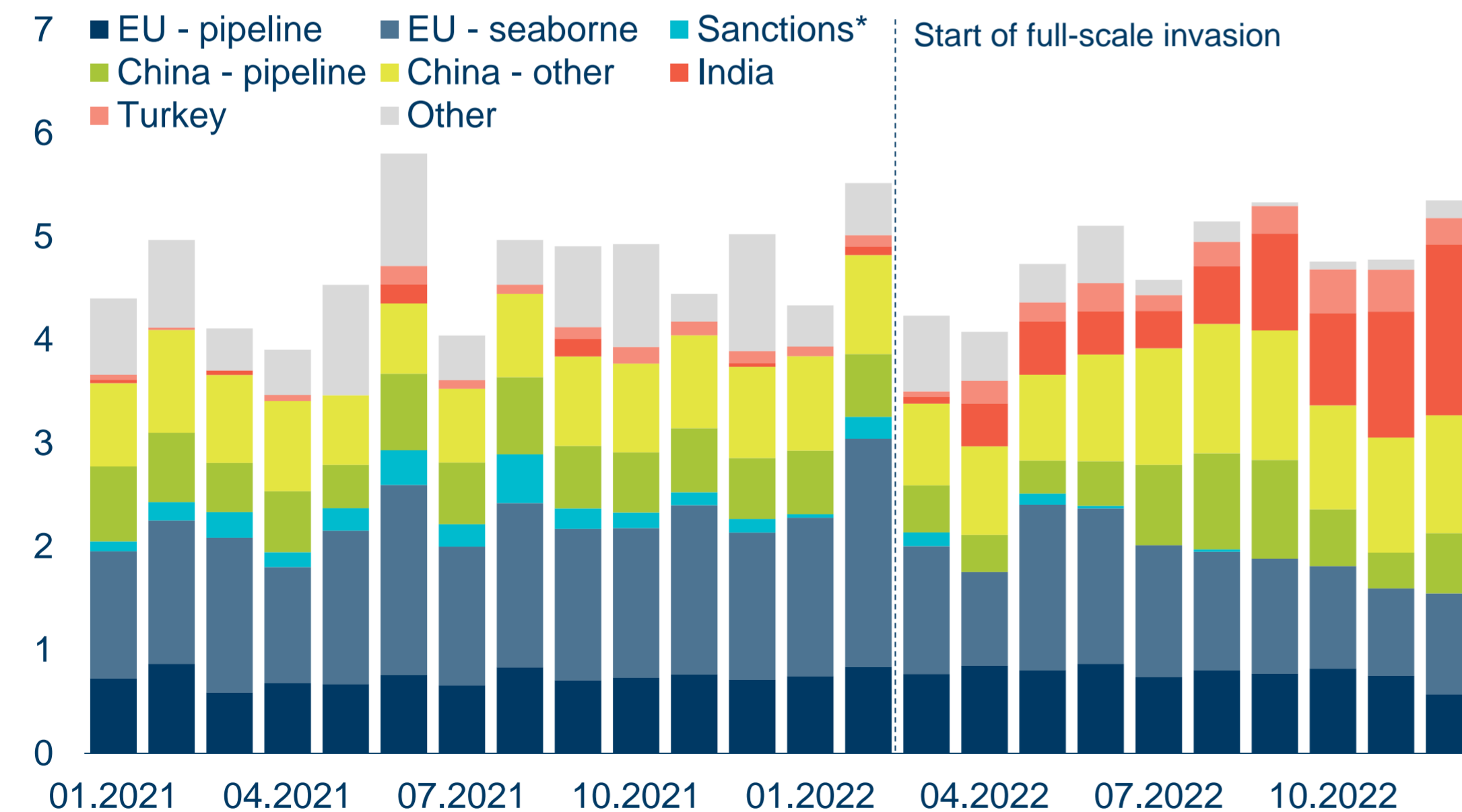
	Seaborne crude oil	Pipeline crude oil	Petroleum products	Pipeline nat. gas	Liquefied nat. gas
<b>Europe</b>					
European Union	●	●	●	●	●
Norway	●	●	●	N/A	N/A
Switzerland	●	●	●	●	N/A
United Kingdom	●	N/A	●	●	●
<b>Other coalition</b>					
Australia	●	N/A	●	N/A	●
Canada	●	N/A	●	N/A	●
New Zealand	●	N/A	●	N/A	●
United States	●	N/A	●	N/A	●
Japan	●	N/A	●	N/A	●
South Korea	●	N/A	●	N/A	●
Taiwan	●	N/A	●	N/A	●

● – sanctions imposed; ● – sanctions imposed with exemptions (temporary derogations for seaborne crude oil imports into Bulgaria as well as seaborne vacuum gas oil imports into Croatia, and temporary exception for pipeline crude imports into the Czech Republic, Hungary, and the Slovak Republic; ● – sanctions not imposed, N/A – not applicable

## Russia is struggling to find alternative buyers while prices drop.

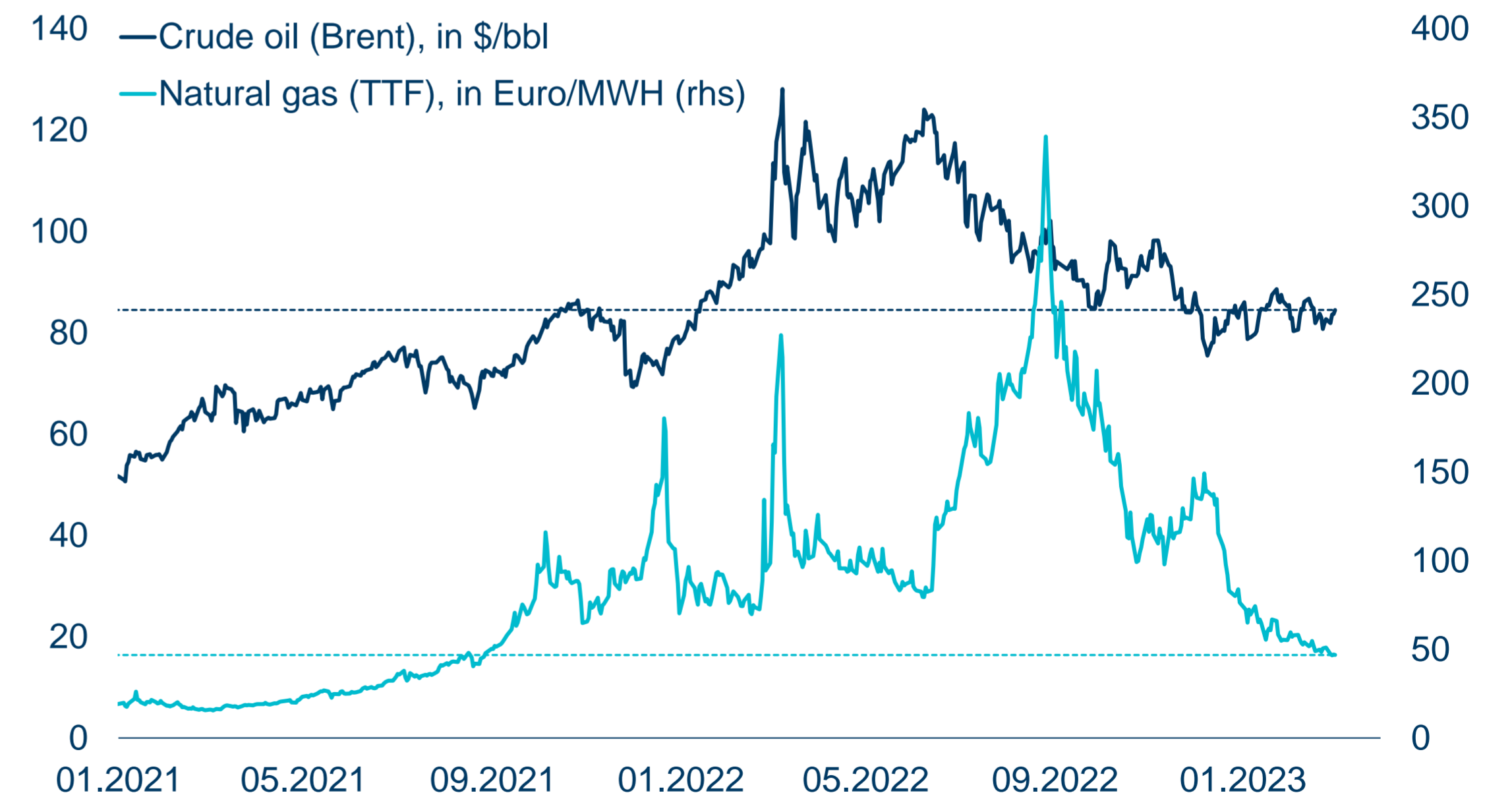
- Russia was able to redirect crude oil to alternative destinations such as China, India, and Turkey for most of 2022.
- But the strategy is reaching a limit in the aftermath of the EU embargo—resulting in heavy discounts for Urals.
- In addition, global energy prices moderated in 2022H2; in fact, natural gas prices are back to mid-2021 levels.

Crude oil imports from Russia, in million barrels/day



Source: Federal Customs Service, KSE Institute \*includes AU, CA, CH, UK, and US

Prices for crude oil and natural gas

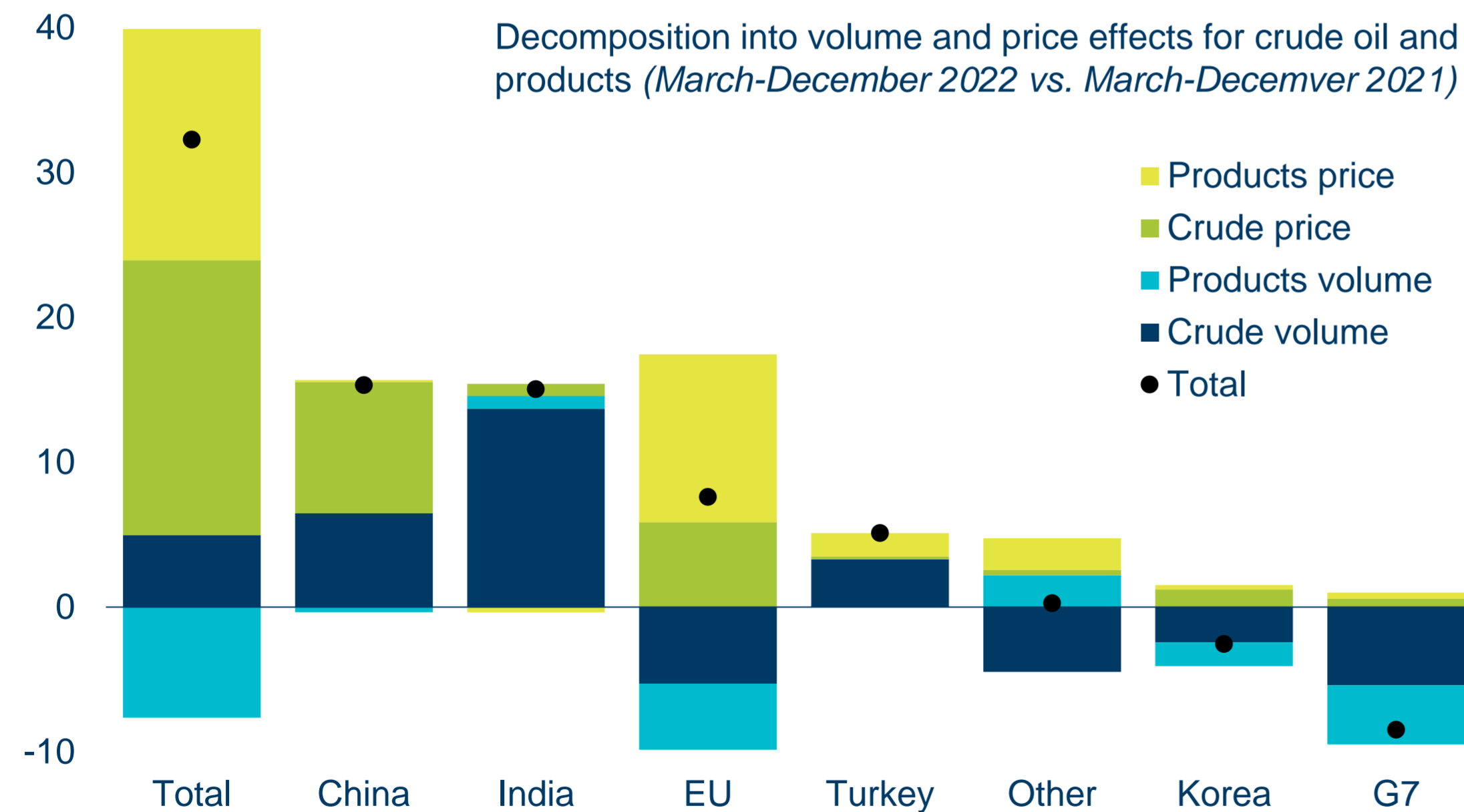


Source: Financial Times, Intercontinental Exchange, KSE Institute

## Soaring prices helped Russia in 2022 but are a major vulnerability now.

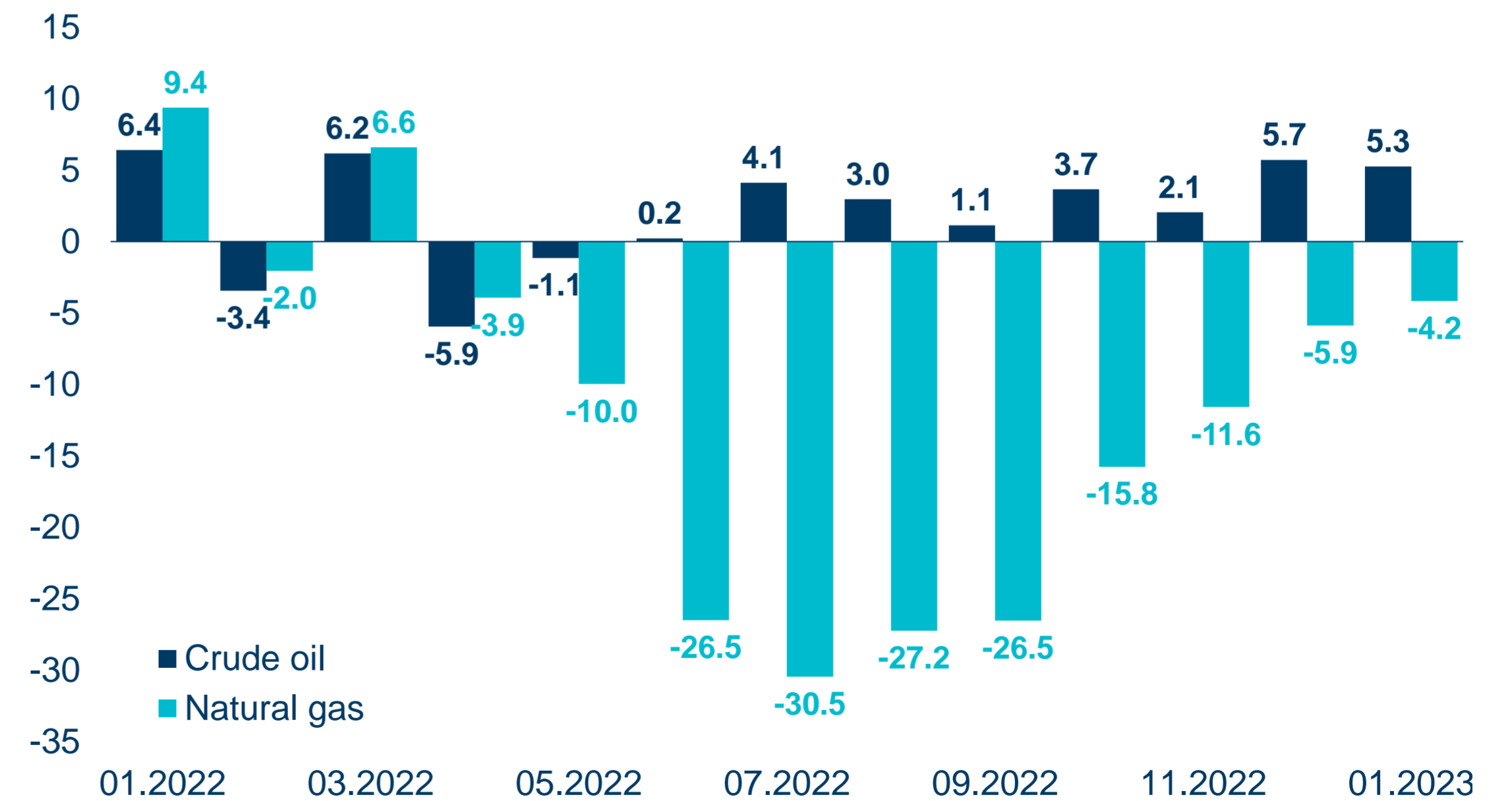
- The impact from prices is evident in a decomposition of post-invasion exports of crude oil and oil products.
- Higher prices drove up export earnings by more than \$30 billion despite volume reductions for the EU and G7.
- This illustrates how vulnerable Russia is to falling prices as downward pressure on volumes continues.

Change in payments for Russian oil, in U.S. dollar billion



Source: Federal Customs Service, KSE Institute

Russian production volumes, % change vs. 2021 average volumes

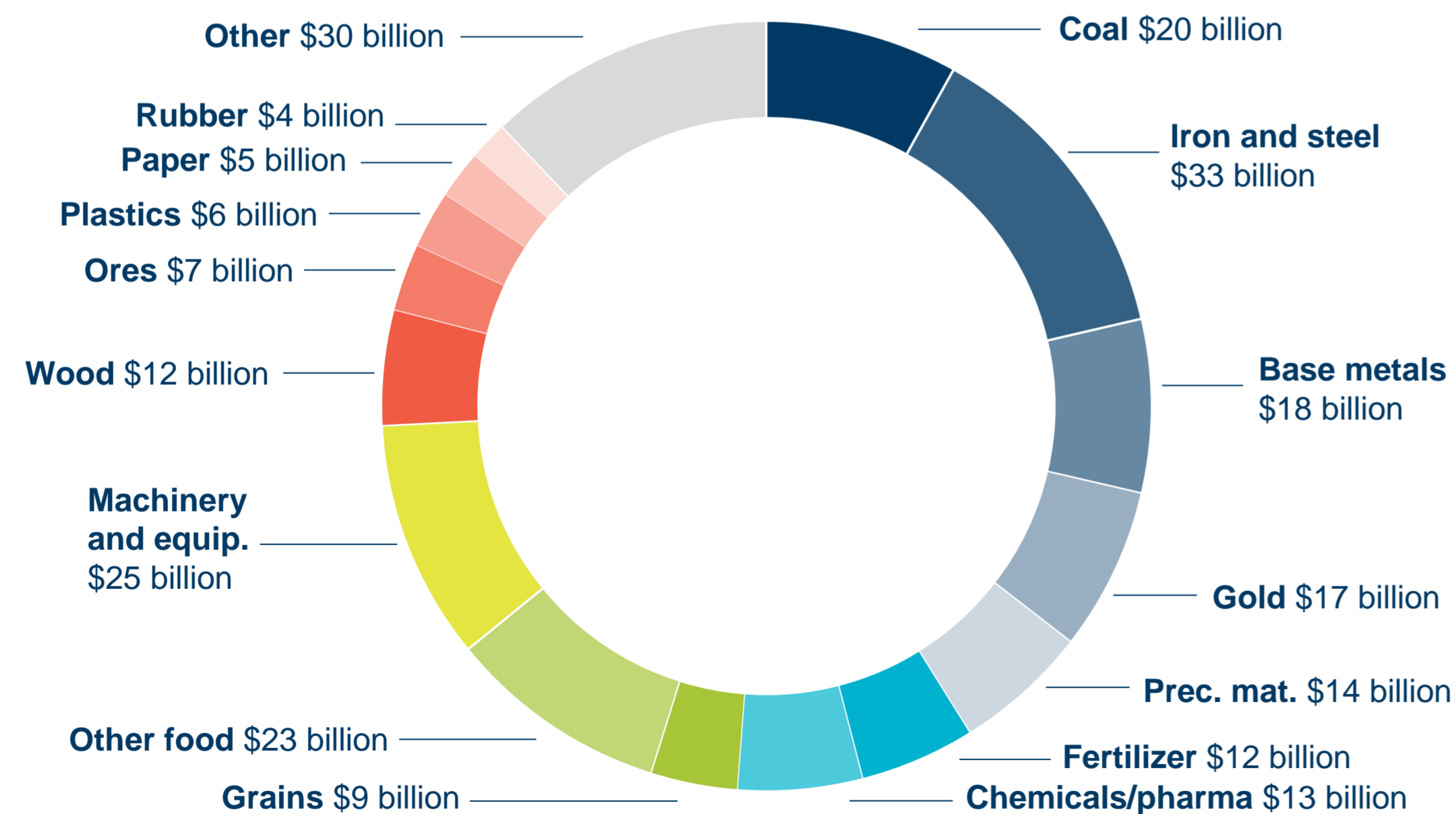


Source: Rosstat, KSE Institute

## Significant room remains for additional trade sanctions outside of energy.

- While measures targeting Russian energy are having a major impact by now, other trade sanctions have major gaps.
- In our view, it would be critical to extend restrictions that exist in some countries to the entirety of the sanction coalition.
- Possible targets are diamonds, iron ore, mined uranium, timber, and steel products—together with a fertilizer price cap.

Composition of 2021 non-oil and gas exports



Source: UN Comtrade, KSE Institute

Non-oil and gas exports sanctions coverage

	EU	UK	CH	NO	US	CA	JP	AU	NZ
Iron and steel	●	●	●	●	●	●	●	●	●
Machinery and equip.	●	●	●	●	●	●	●	●	●
Coal	●	●	●	●	●	●	●	●	●
Gold	●	●	●	●	●	●	●	●	●
Fertilizer	●	●	●	●	●	●	●	●	●
Timber	●	●	●	●	●	●	●	●	●
Various chemicals	●	●	●	●	●	●	●	●	●
Wheat	●	●	●	●	●	●	●	●	●
Fish and seafood	●	●	●	●	●	●	●	●	●
Wood pulp and paper	●	●	●	●	●	●	●	●	●
Non-industrial diamonds	●	●	●	●	●	●	●	●	●
Iron ore	●	●	●	●	●	●	●	●	●
Rubber and products	●	●	●	●	●	●	●	●	●
Bituminous substances	●	●	●	●	●	●	●	●	●

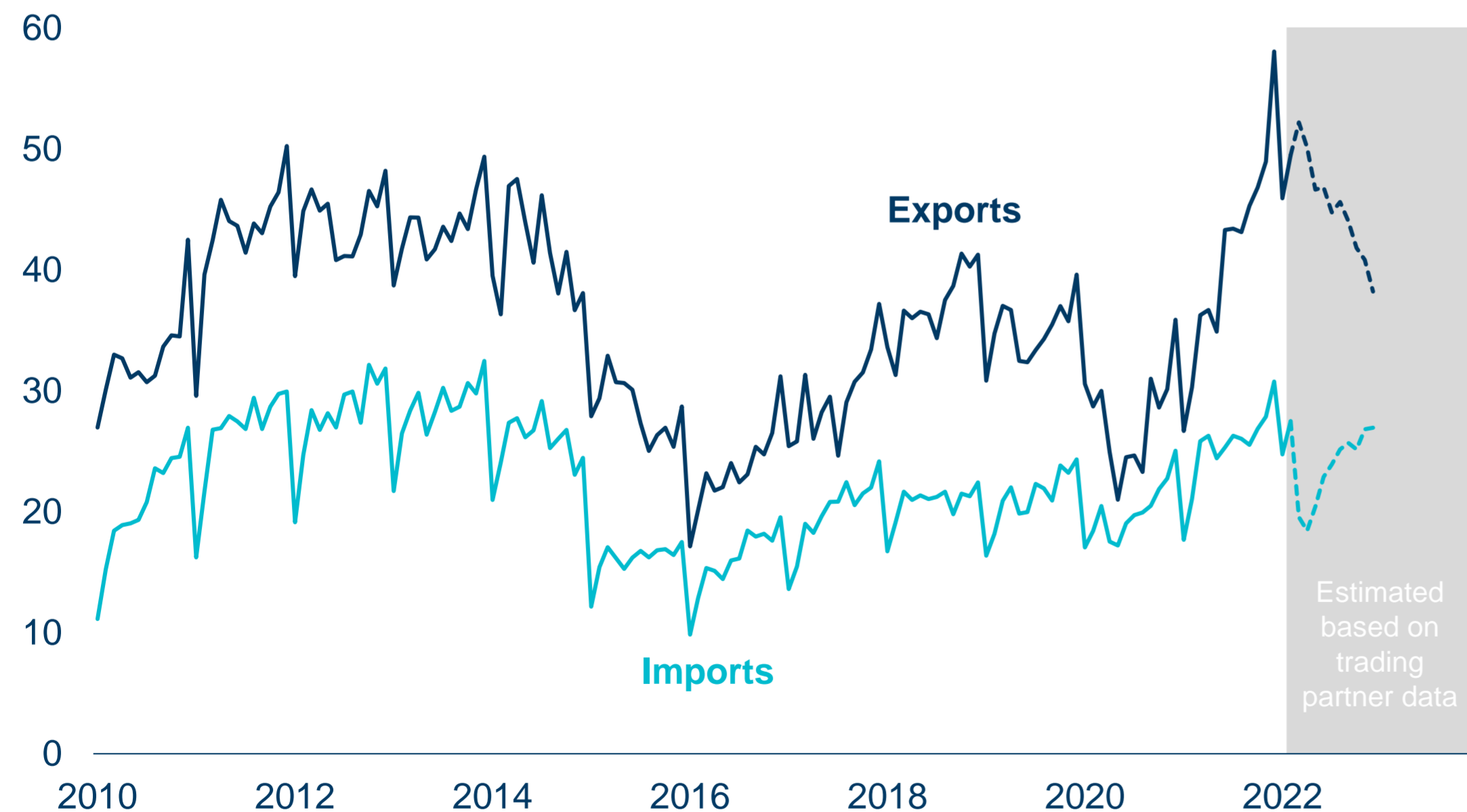
● – sanctioned, ● – partially sanctioned, ● – not sanctioned

Source: UN Comtrade, KSE Institute

## Trade balance declined significantly towards the end of 2022.

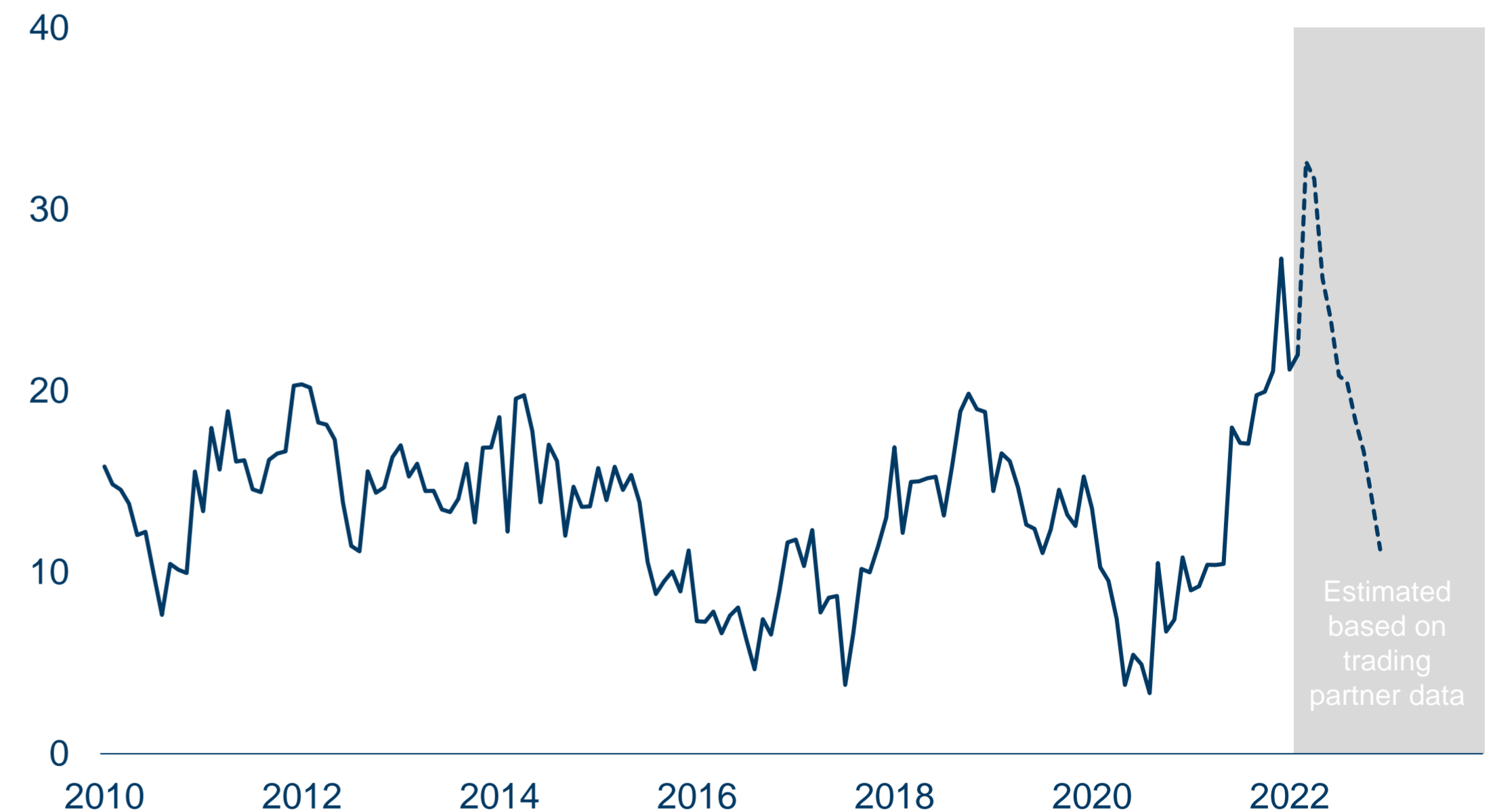
- We estimate that total goods exports reached \$547 billion in 2022, up 10.7% compared to the previous year.
- Imports weakened to \$287 billion, down 5.5% vs. 2021, despite a recovery in 2022H2 which now seems to stall.
- The trade balance (\$259 billion in 2022) narrowed sharply in recent months, to around \$10 billion in December.

**Estimated exports and imports, in U.S. dollar billion**



Source: national authorities, KSE Institute

**Estimated trade balance, in U.S. dollar billion**



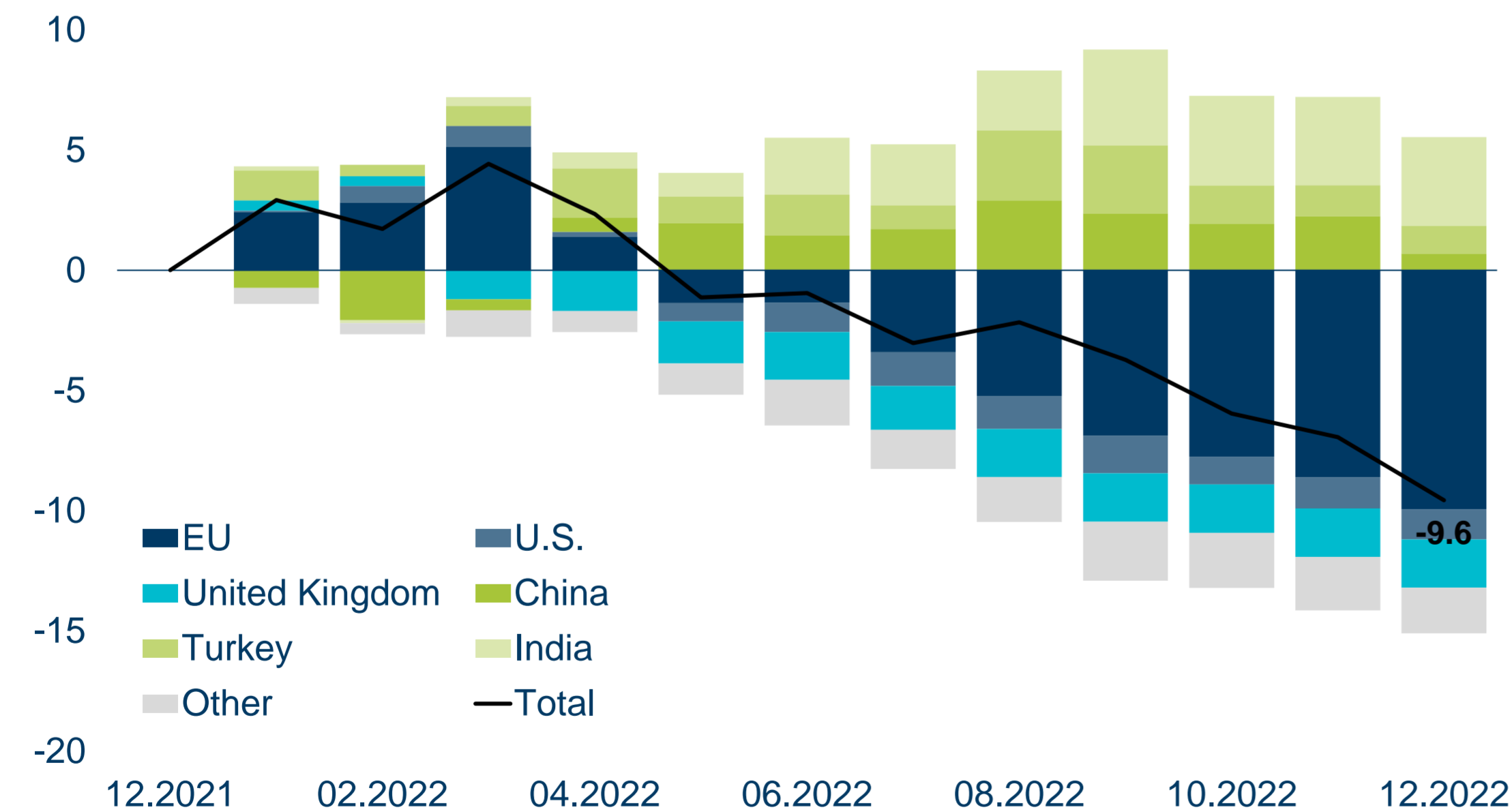
Source: national authorities, KSE Institute



## Key drivers are declining exports and a recovery in imports.

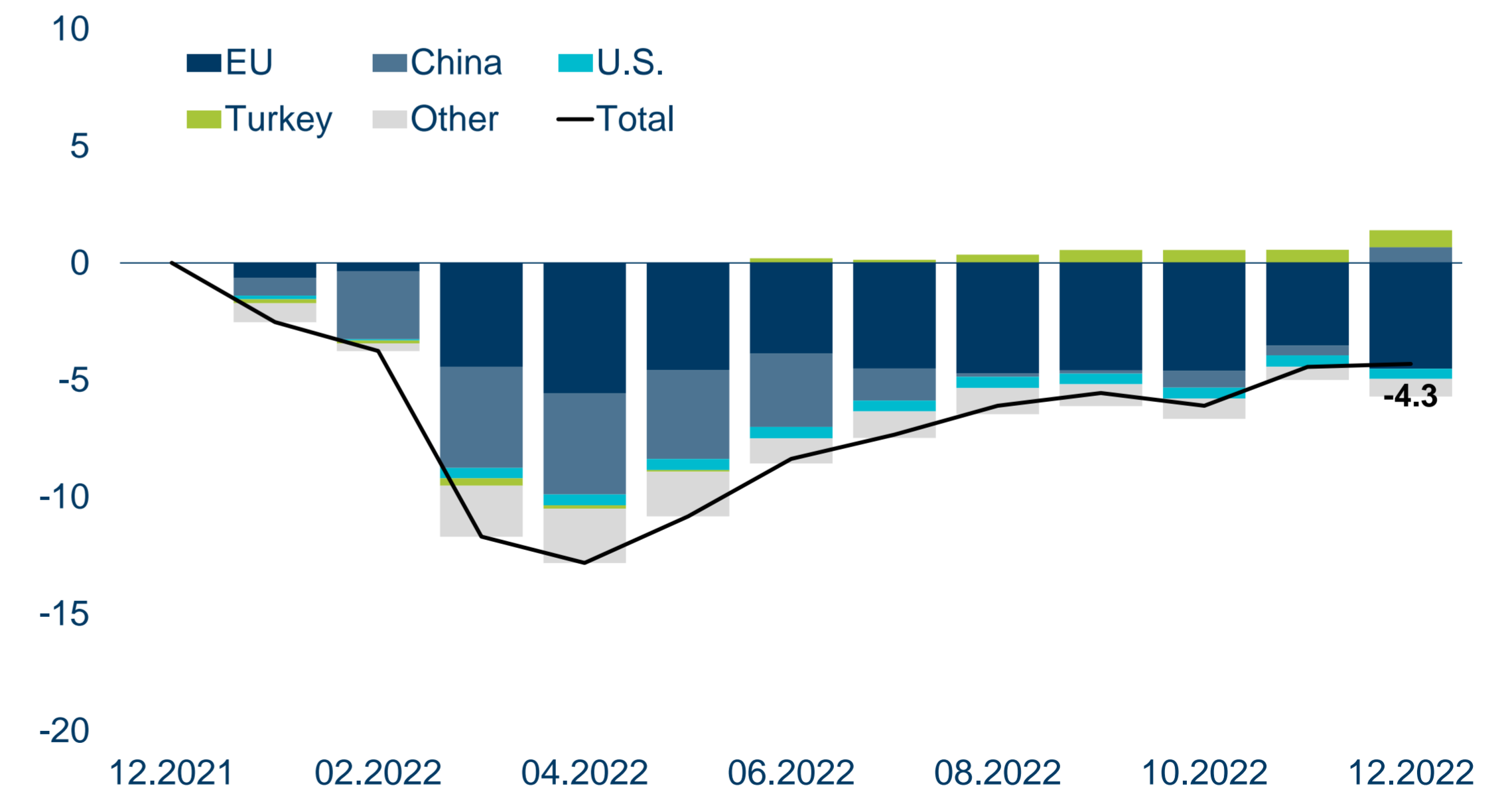
- Higher prices for key goods—and redirection to alternative buyers—supported Russian exports for parts of 2022.
- But total exports weakened in Q4 as energy prices moderated and the EU embargo on crude oil took effect.
- On the imports side, Russia has not been able to replace EU and US trade, although imports from China recovered.

Change in goods exports vs. December 2021, in U.S. dollar billion



Source: national authorities, KSE Institute

Change in goods imports vs. December 2021, in U.S. dollar billion

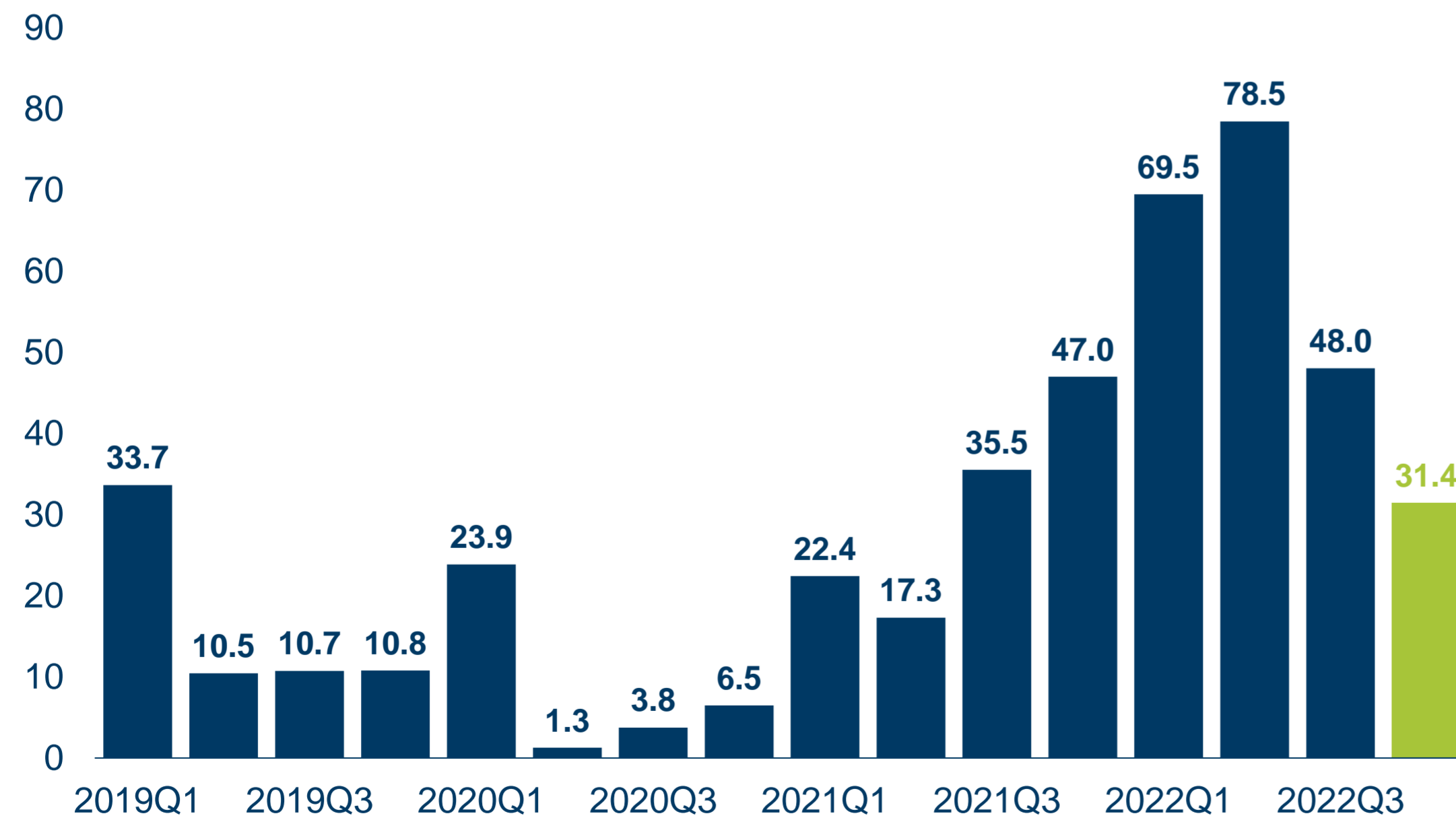


Source: national authorities, KSE Institute

## The external environment continues to worsen.

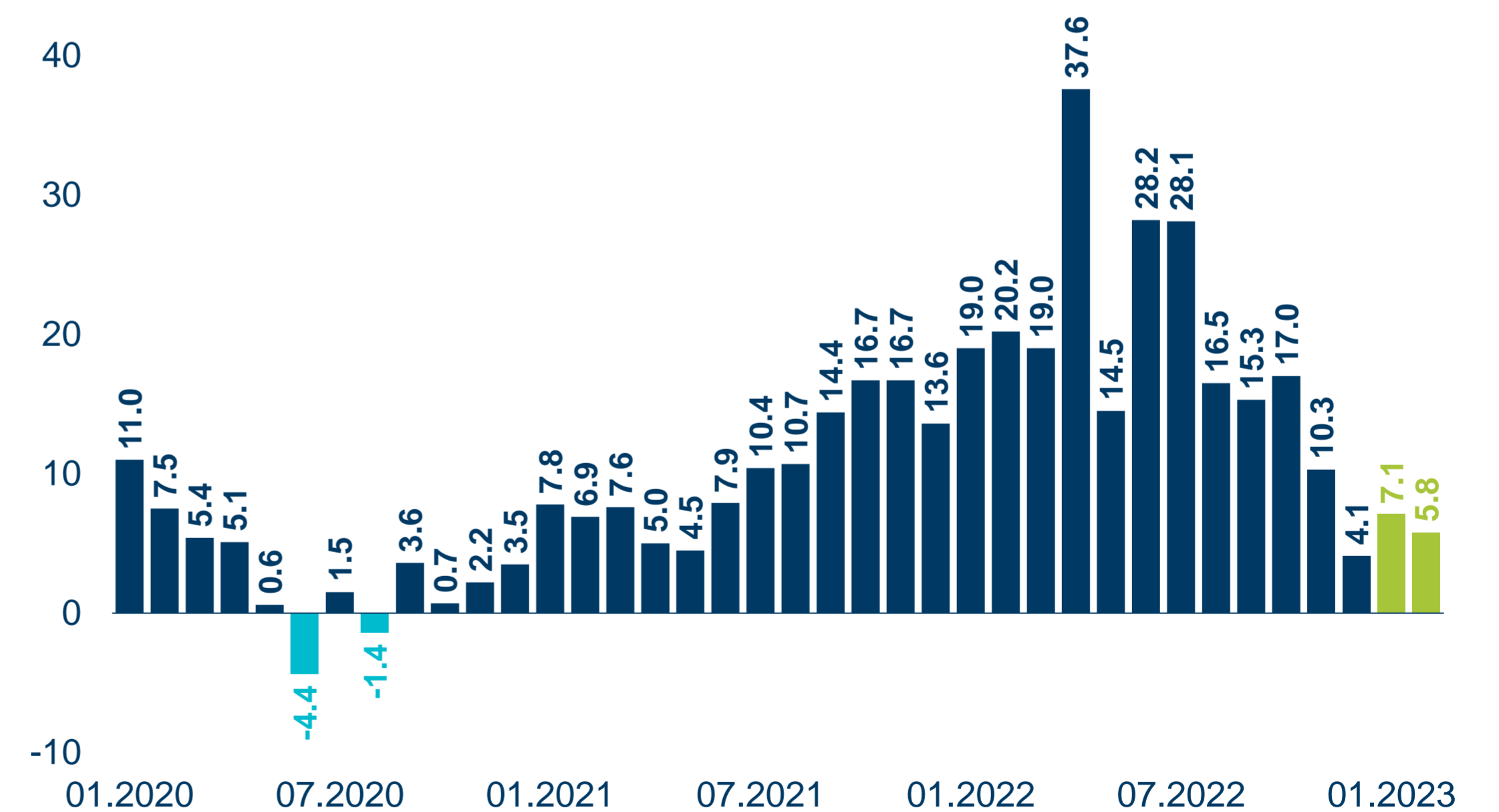
- The current account surplus fell to \$31.4 billion in 2022Q4, the lowest reading since early 2021.
- December-February show growing weakness at \$4.1 billion, \$7.1 billion, and \$5.8 billion, respectively.
- The EU embargo on crude oil and Europe’s moving away from Russian gas clearly have an impact.

Quarterly current account balance, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

Monthly current account balance, in U.S. dollar billion\*

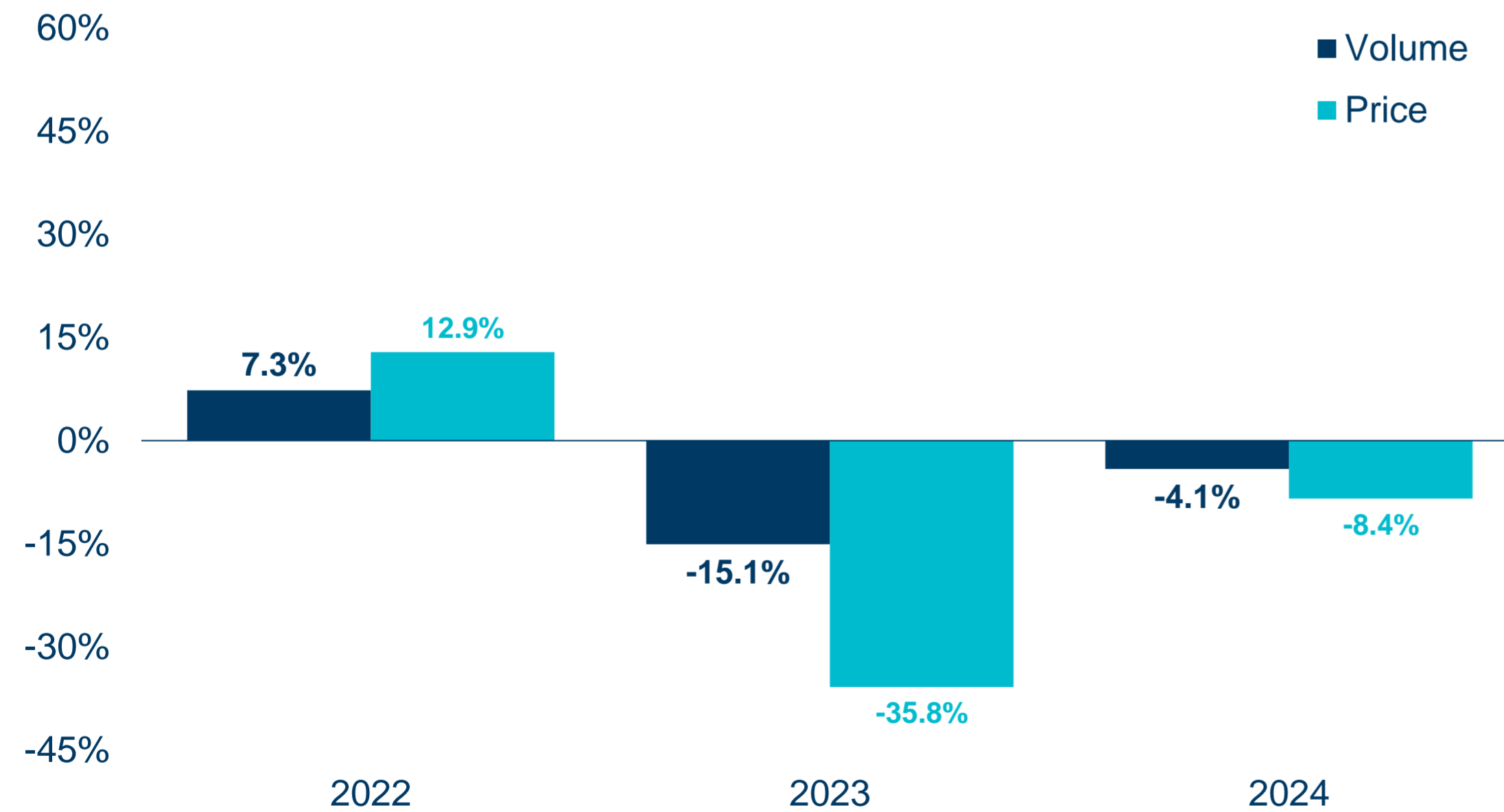


Source: Bank of Russia, KSE Institute \*monthly and quarterly data do not fully align

## We project a significant decline in oil and gas exports this year.

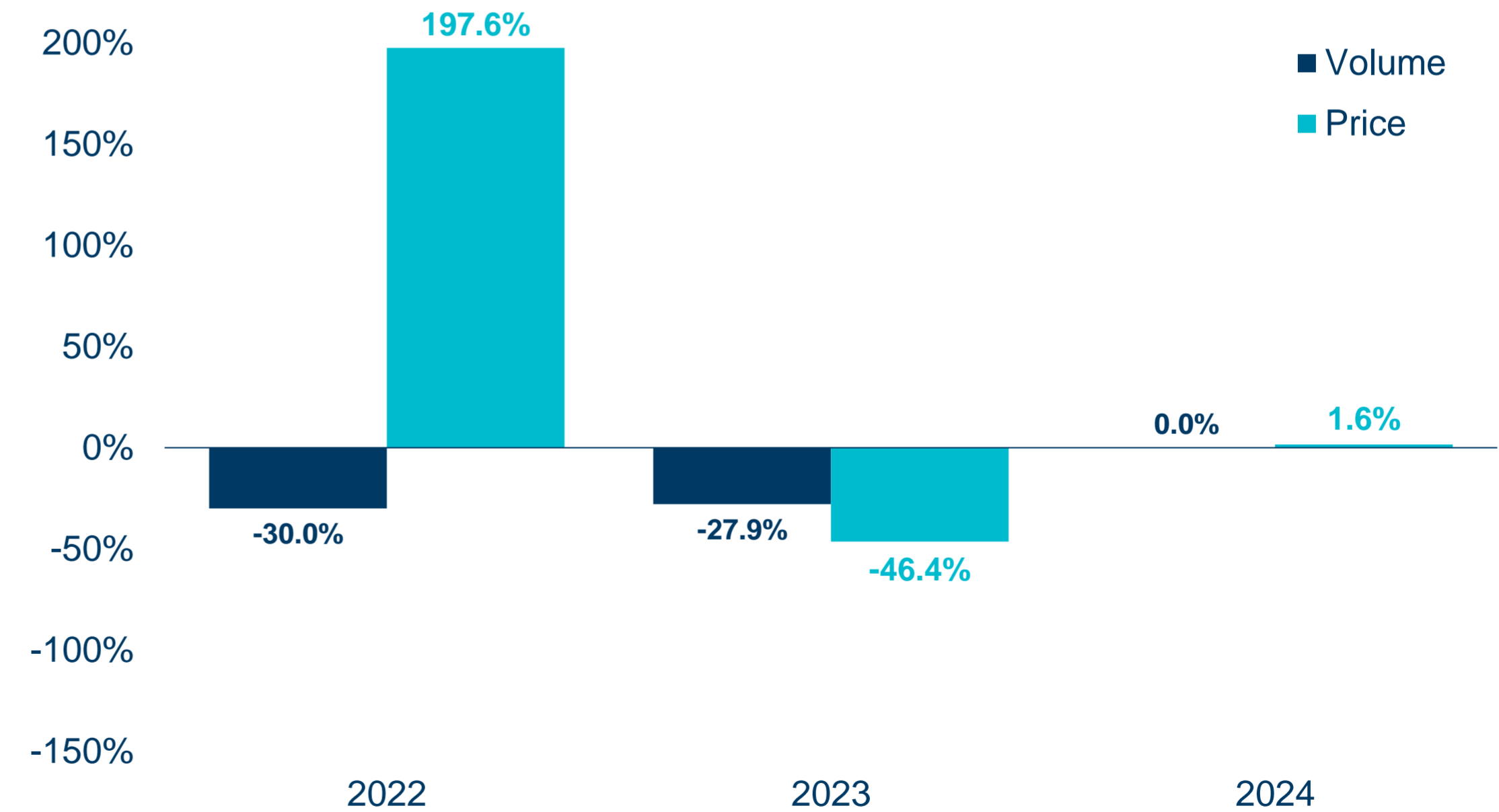
- We expect significant declines in oil and gas export volumes in 2023, 15.1% and 27.9%, respectively.
- Prices, which already moderated in 2022H2, will fall further—by 35.8% for oil and 46.4% for gas in 2023.
- Importantly, we do not foresee any bounce back in 2024, rather oil volumes and prices will decline further.

Oil volume and price forecast, in % year-over-year



Source: KSE Institute

Natural gas volume and price forecast, in % year-over-year

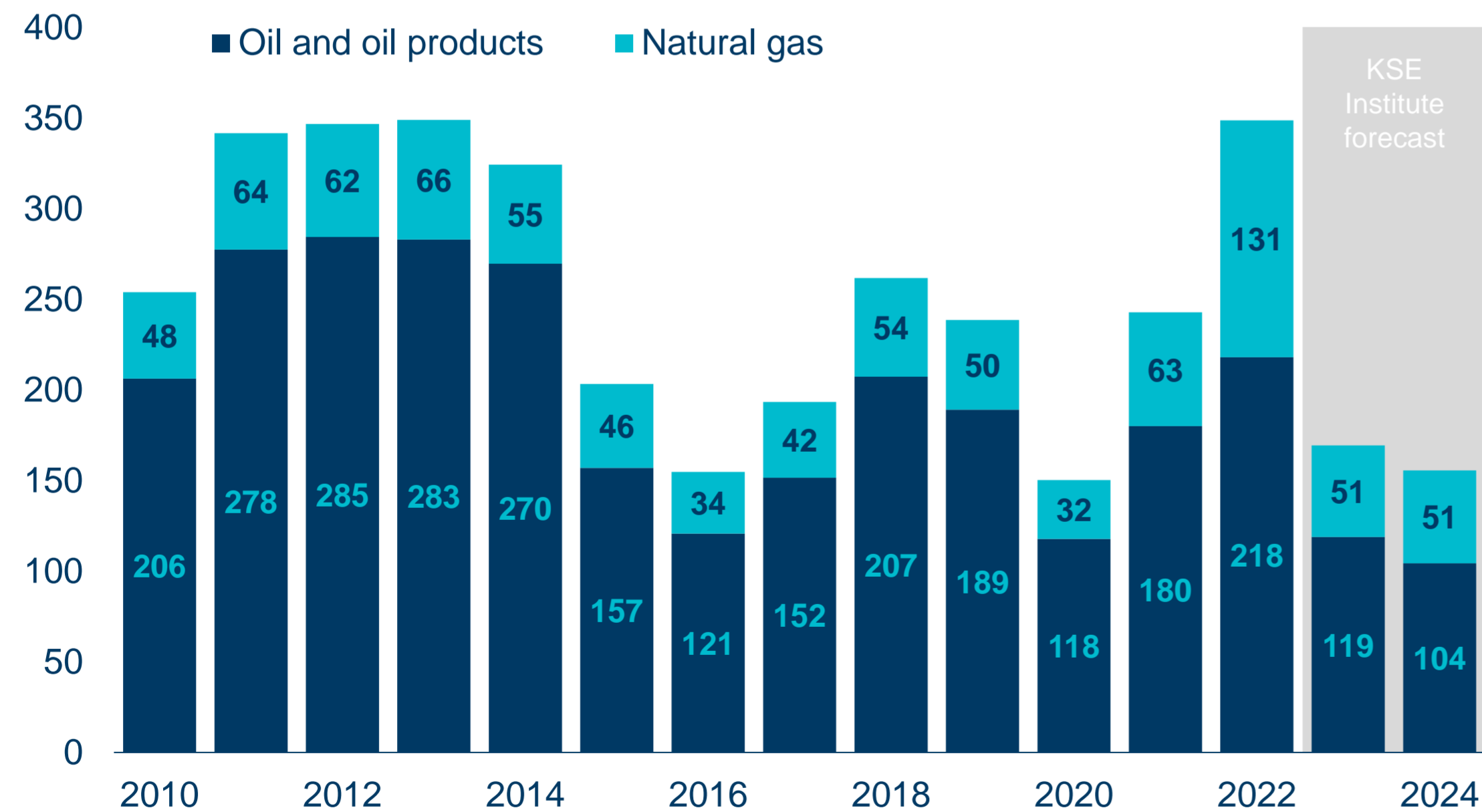


Source: KSE Institute

## As a result, lower hydrocarbon earnings will weigh on the current account.

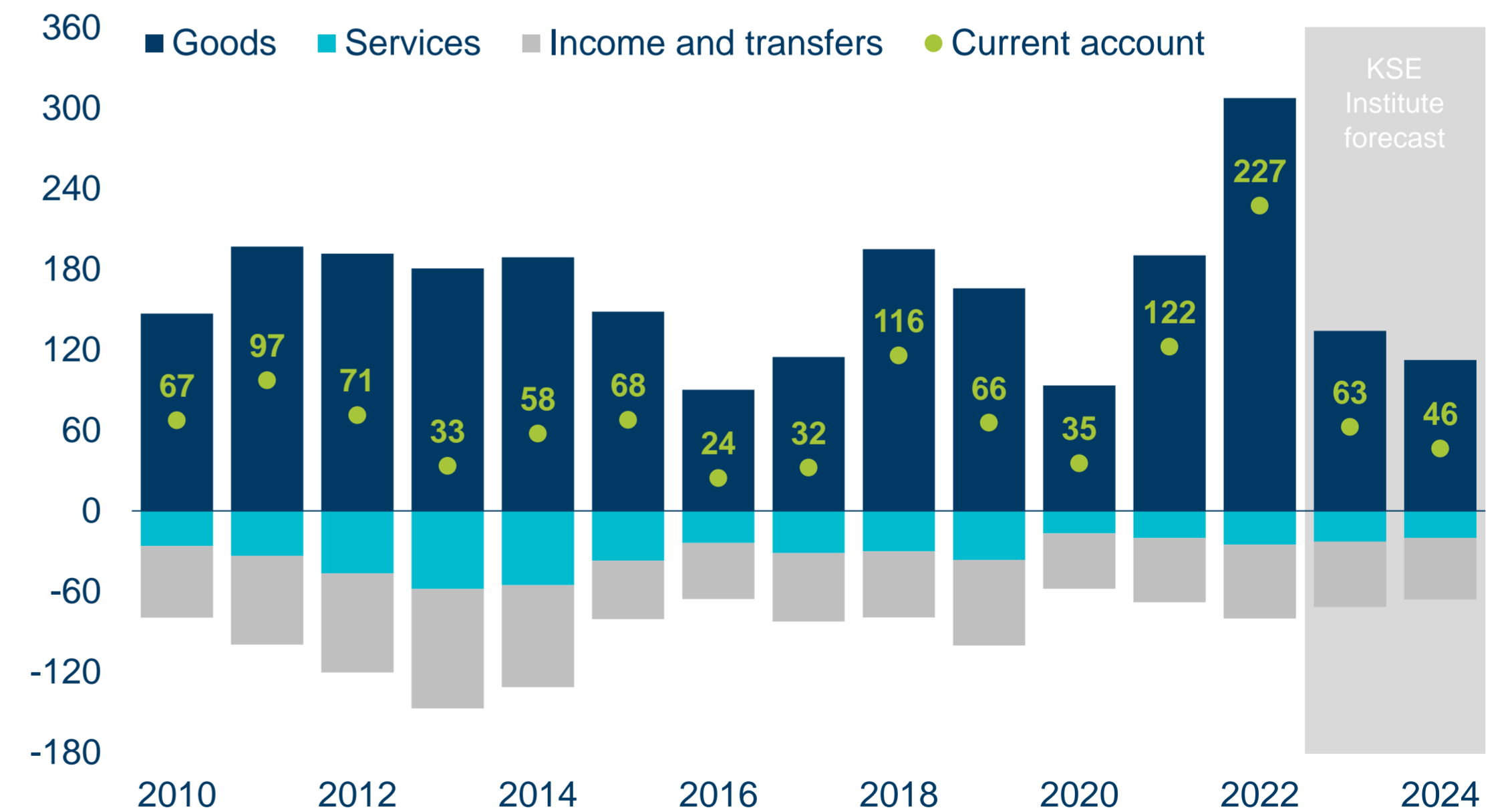
- We project that lower export volumes and prices will cut oil and gas earnings by half this year.
- In turn, the current account surplus will narrow sharply—to \$63 billion in our revised forecast (previously \$80 billion).
- The 2023 budget is based on very different assumptions, however (in line with a \$123 billion surplus).

Oil and gas earnings, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

Current account and components, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

**At this critical junction, additional sanctions could exacerbate the pressure.**

- To exacerbate challenges emanating from a less supportive external environment, we propose new oil and gas sanctions.
- We estimate that these measures would reduce oil and gas earnings by \$56 billion and \$66 billion in 2023-24, respectively.
- This would deprive Russia of financing for imports, wear down buffers, and expose economic and financial vulnerabilities.

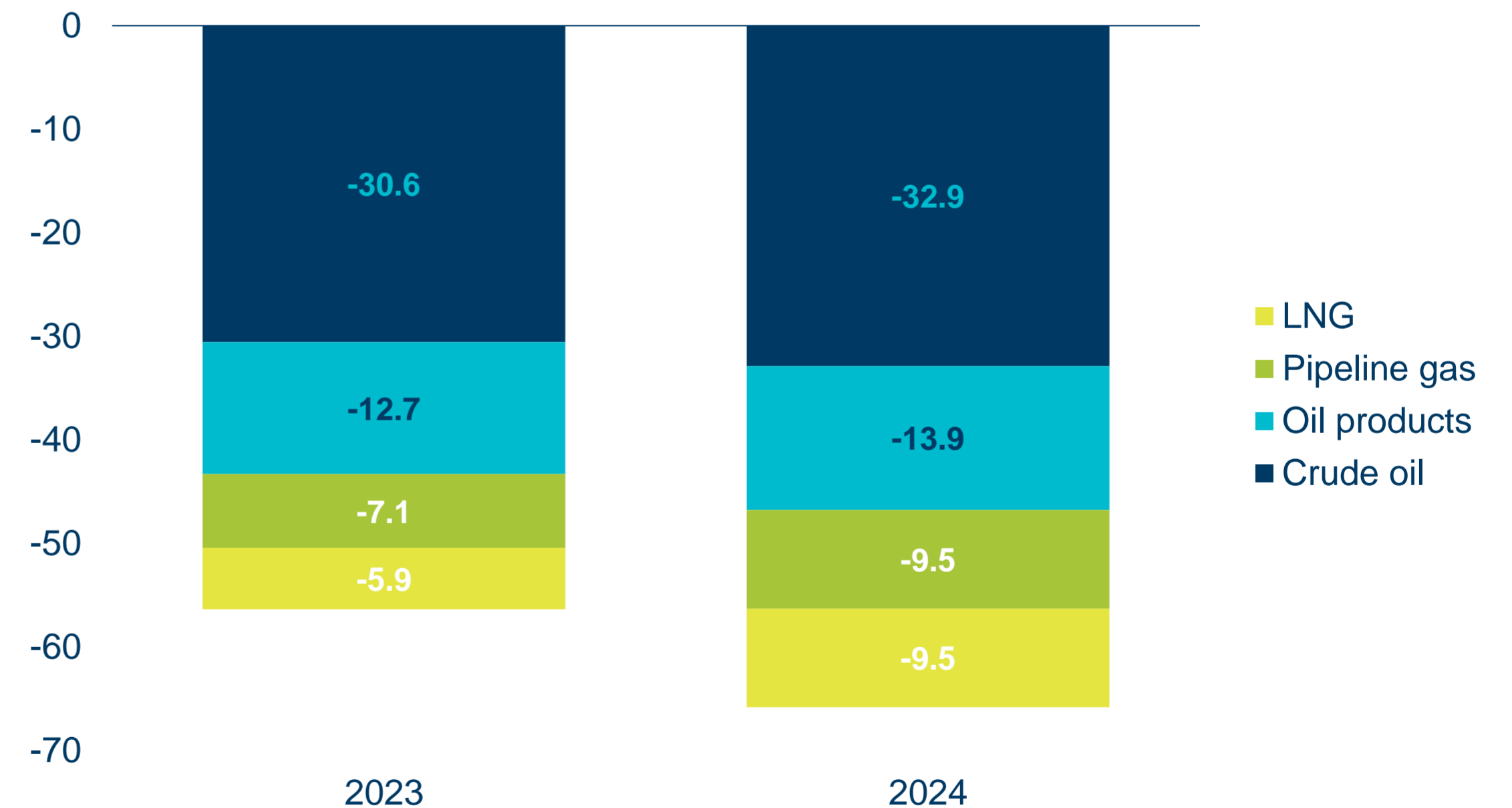
**KSE proposal for further sanctions on Russian oil and gas**

Russia’s position has weakened considerably in recent months as Europe adjusted to the loss of Russian gas supply, and energy prices fell back to pre-invasion levels. We propose to exacerbate challenges created by a less supportive external environment by imposing the following measures:

1. Cutting the crude oil price cap to \$50/barrel at the next review and, ultimately, to \$30/bbl
2. Setting the oil products price caps at levels consistent with the crude price cap and respective pre-invasion price spreads to crude
3. Banning imports of Russian gas into the EU via pipelines controlled by Russia, thereby closing Turkstream and sending gas via Ukraine
4. Banning imports of Russian LNG into the EU
5. Imposing comprehensive sanctions on Gazprom, Russian oil companies, and Gazprombank

Source: [KSE Proposal for a Further Package of Oil and Gas Sanctions](#), 13.01.2023

**Oil and gas earnings vs. baseline scenario, in U.S. dollar billion**



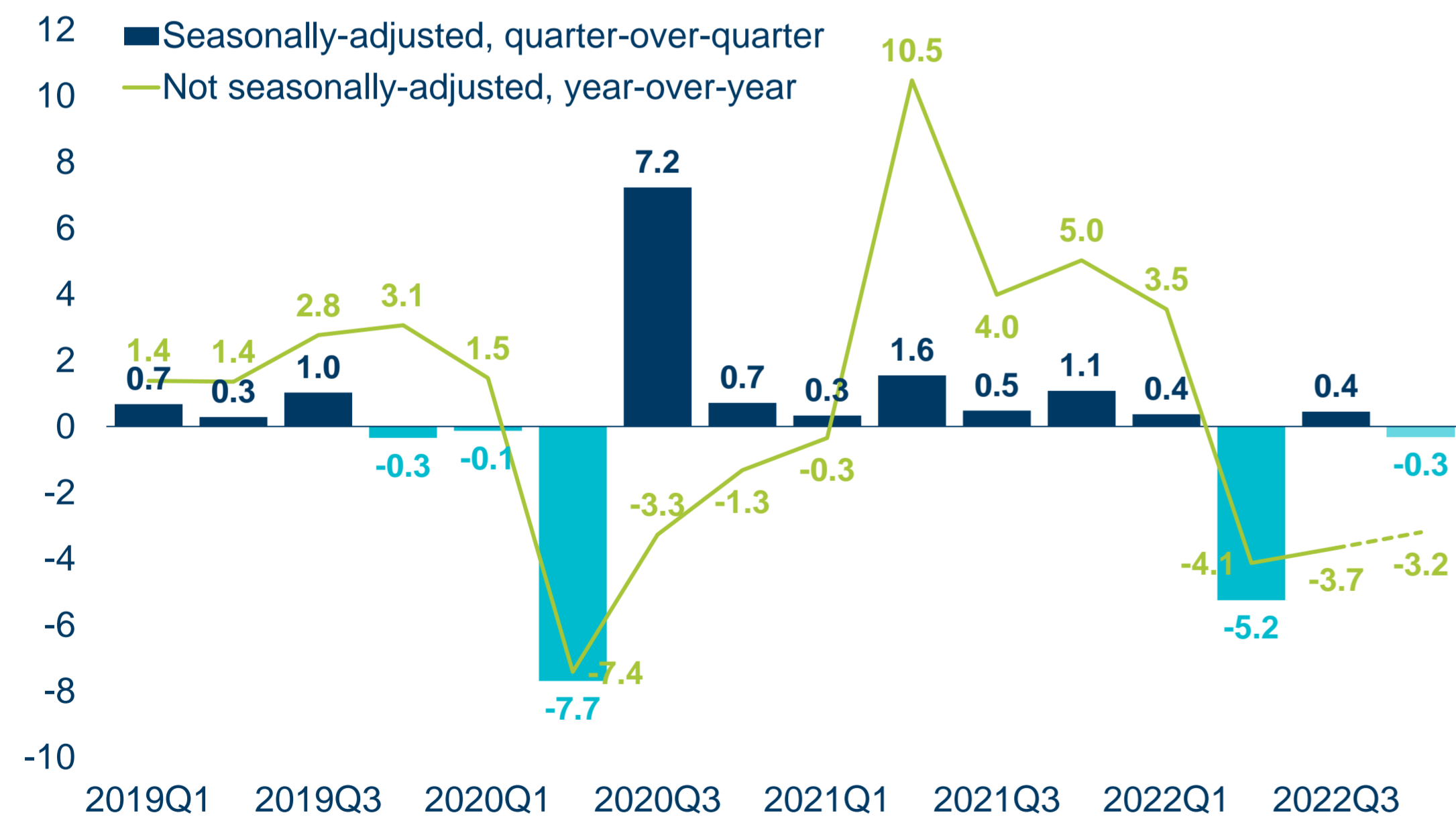
Source: KSE Institute

**Russia's economic crisis  
is deepening in 2023.**

## GDP contraction limited to 2.1% in 2022 according to Rosstat.

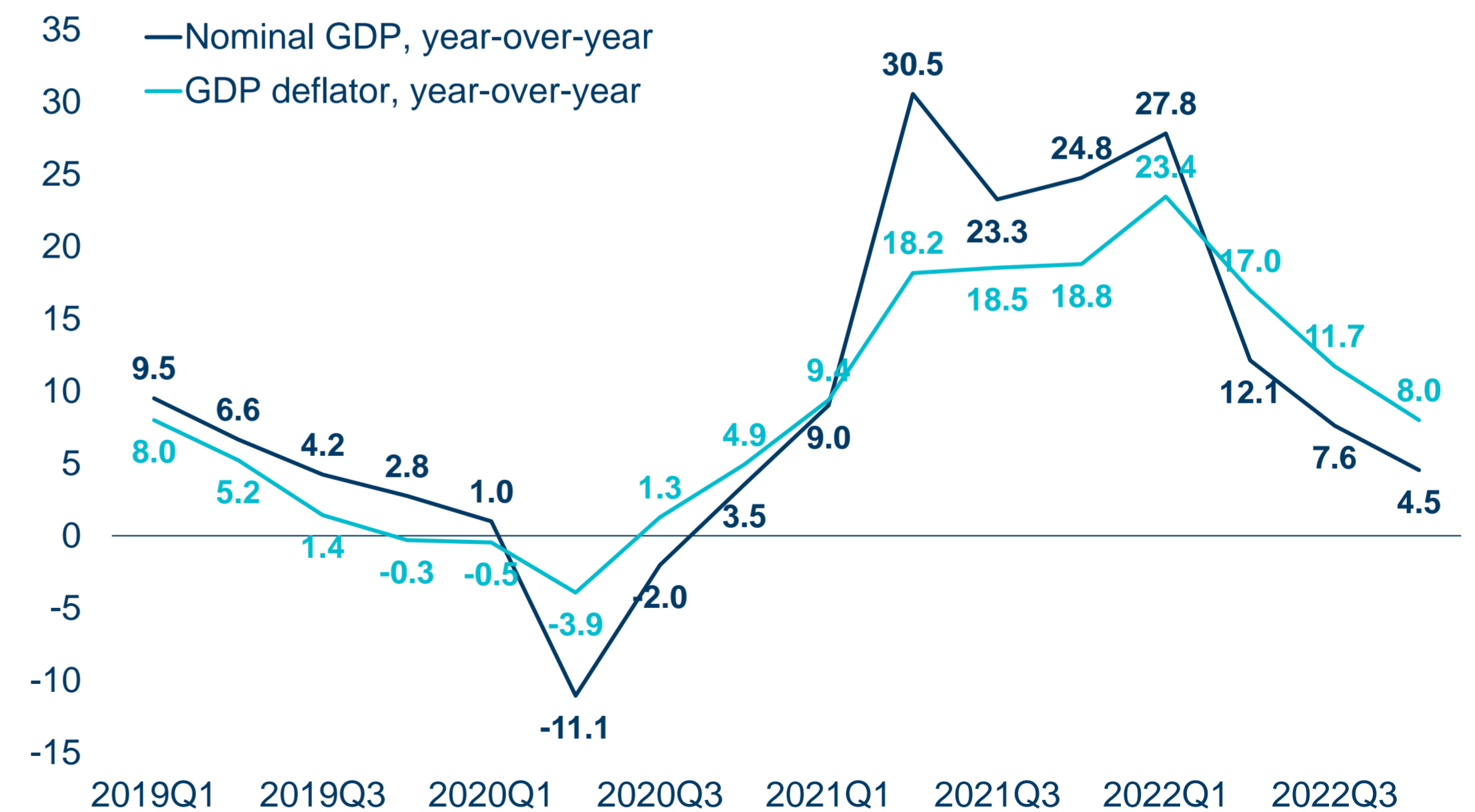
- Russia's economy outperformed expectations in 2022, with GDP only falling by 2.1% according to Rosstat.
- While data is not yet available for 2022Q4, full-year numbers indicate a small sequential decline (~0.3%).
- GDP deflator growth has started to come down, but still reached 14.3% in 2022 (following 19.0% in 2021).

Quarterly real GDP dynamics, in %



Source: Rosstat, KSE Institute

Quarterly nominal GDP dynamics, in %

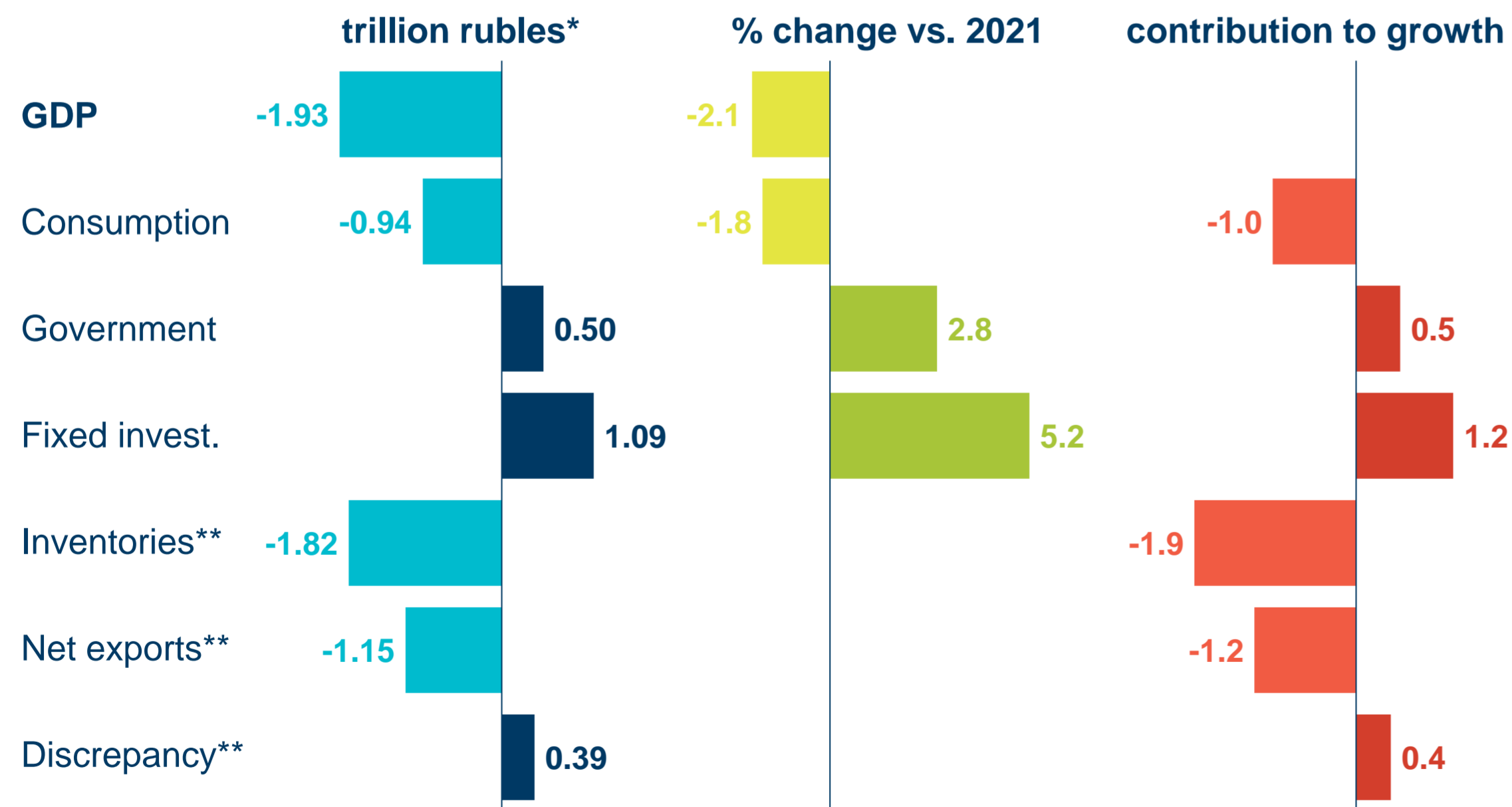


Source: Rosstat, KSE Institute

## Net exports weighed on overall economic activity in 2022.

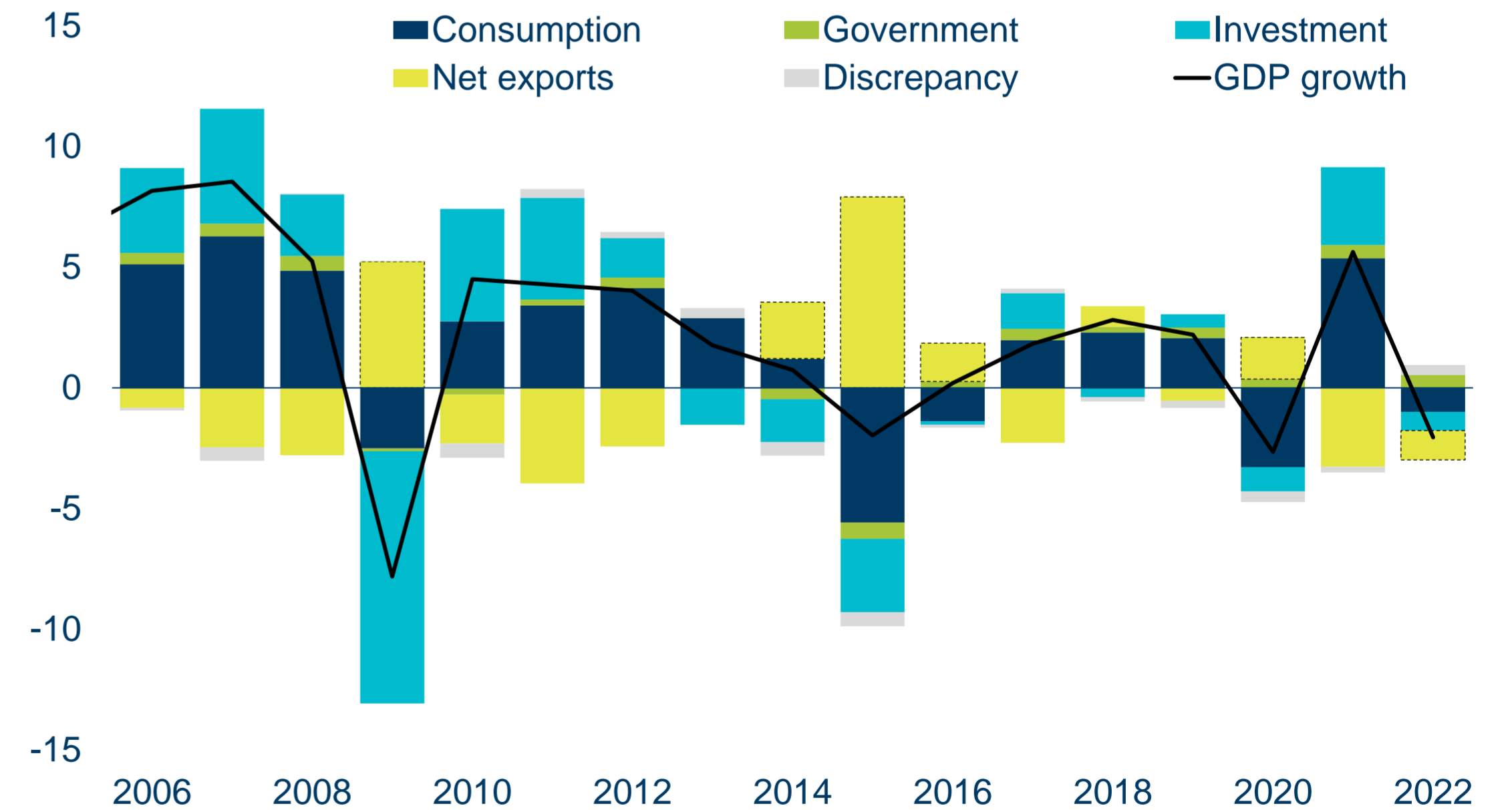
- Private consumption, net exports, and capital formation (fixed invest. + inventories) had the largest negative effects on GDP.
- Comparing national accounts and BoP numbers shows what large role prices played for Russian trade in 2022.
- The negative contribution from net exports is extremely unusual during a GDP contraction (e.g., 2009, 2015, 2020).

Performance of GDP and components in 2022



Source: Rosstat, KSE Institute \*constant 2016 rubles \*\*percent change not shown for net items

Contributions to GDP growth, in percentage points



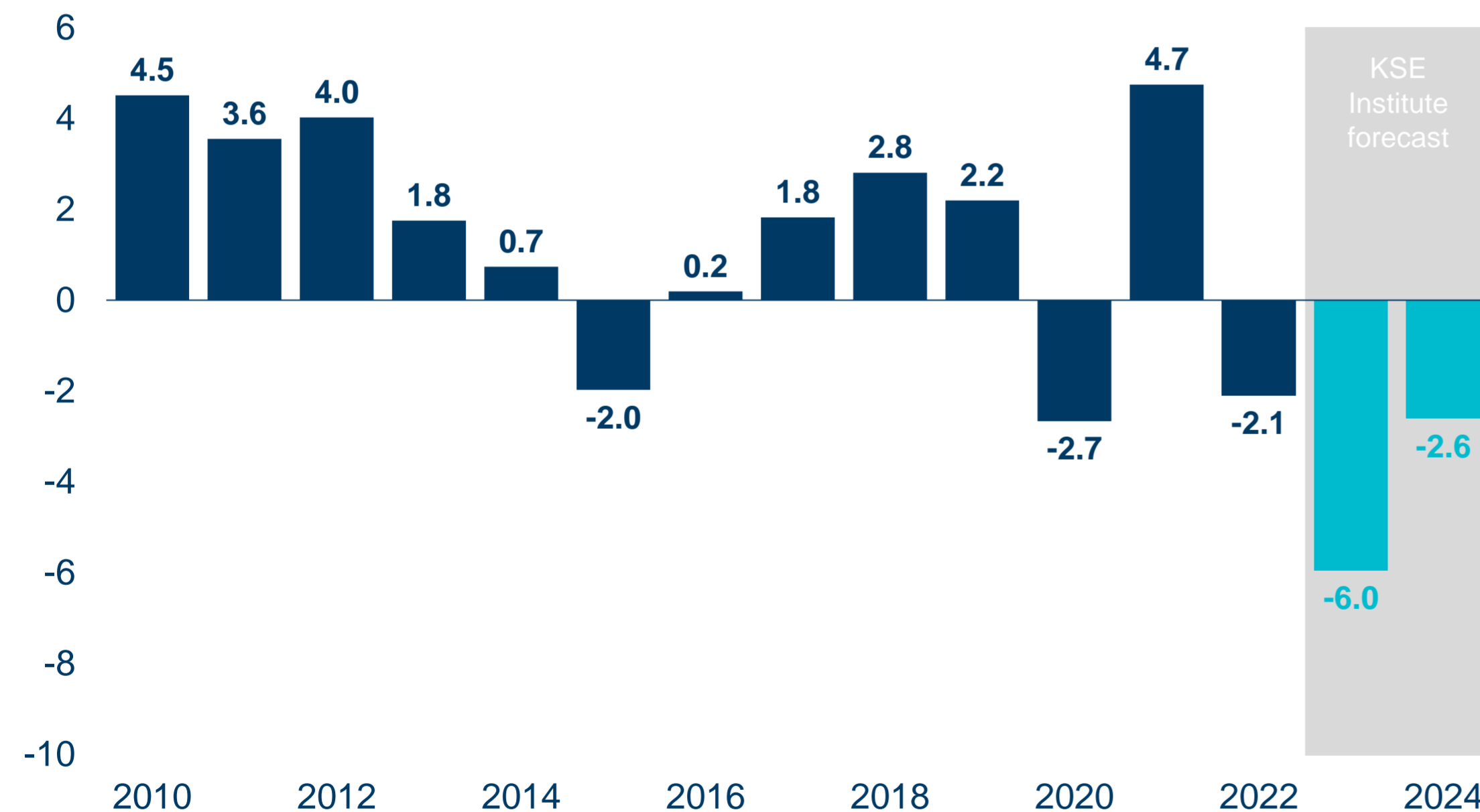
Source: Rosstat, KSE Institute



## We forecast a sharp contraction of Russia's economy this year.

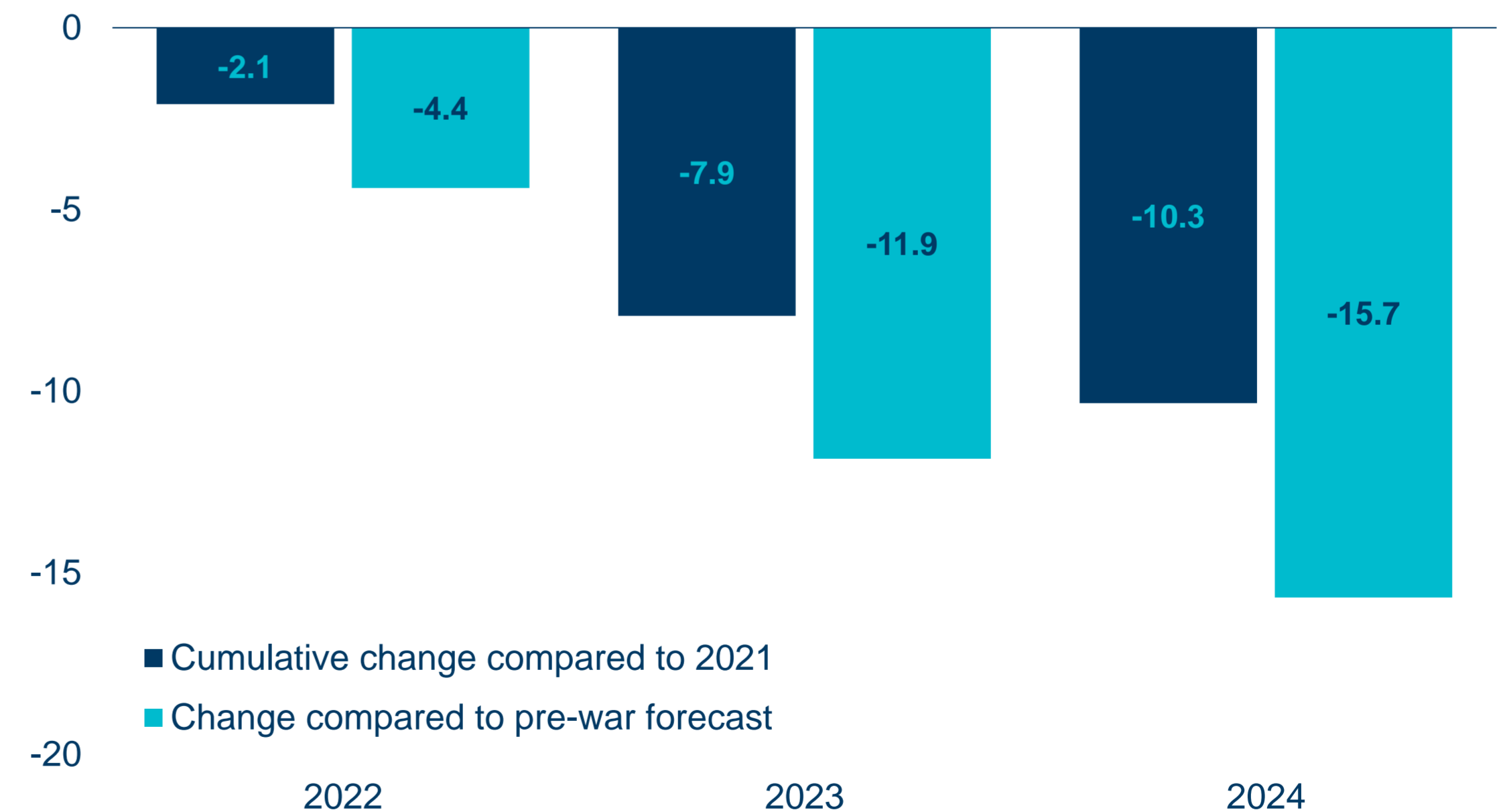
- We project that the economic crisis will deepen this year and next, with GDP falling 6% and 2.6%, respectively.
- Importantly, the war/sanctions-driven crisis will not be followed by a rebound but, rather, an extended period of stagnation.
- By 2024, the Russian economy will be roughly 10% smaller than in 2021 and 16% smaller than in a no-war scenario.

Real GDP growth, in % year-over-year



Source: Rosstat, KSE Institute

Loss in real gross domestic product, in %

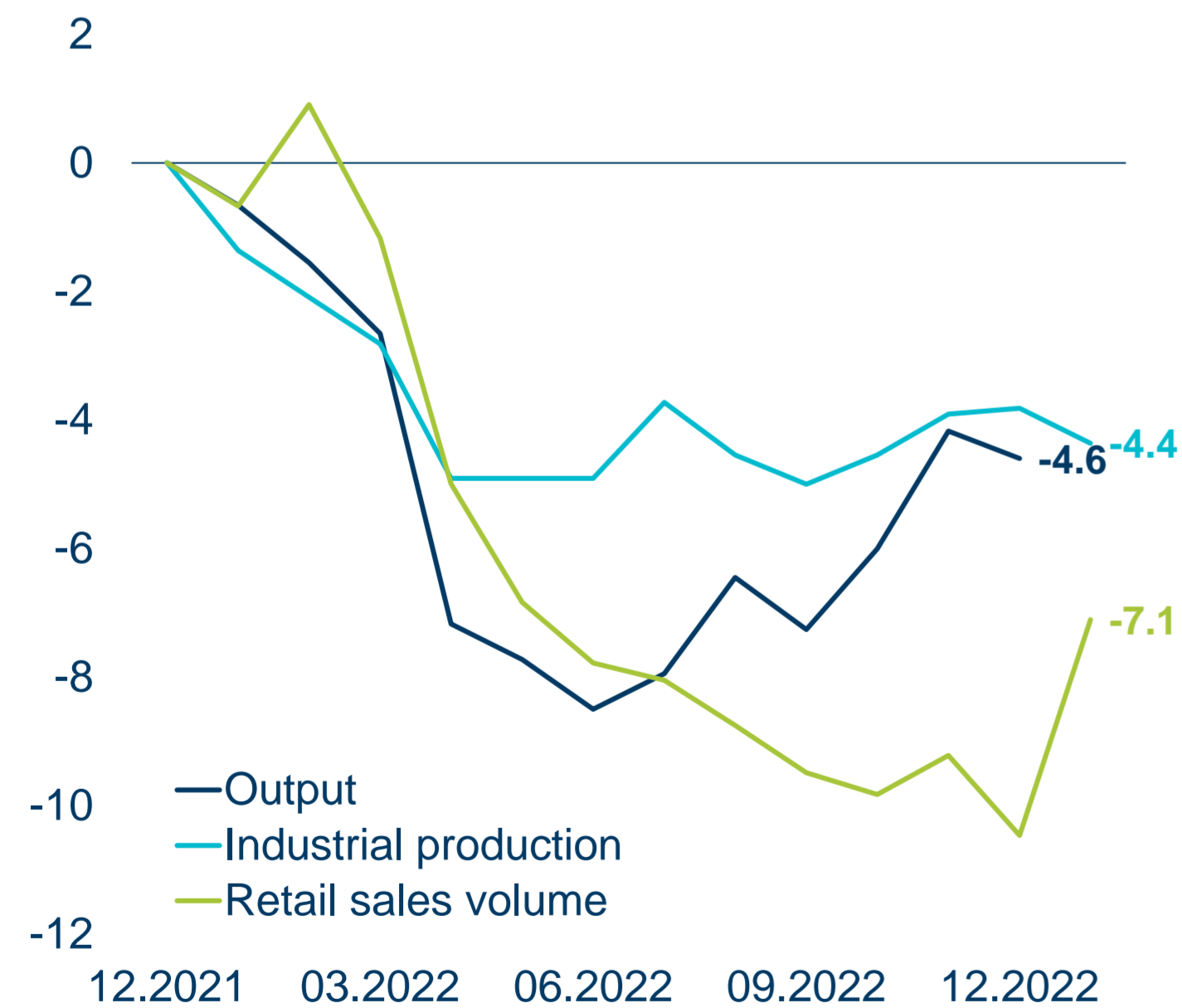


Source: International Monetary Fund, KSE Institute

## In some sectors, the effect of sanctions is clearly visible.

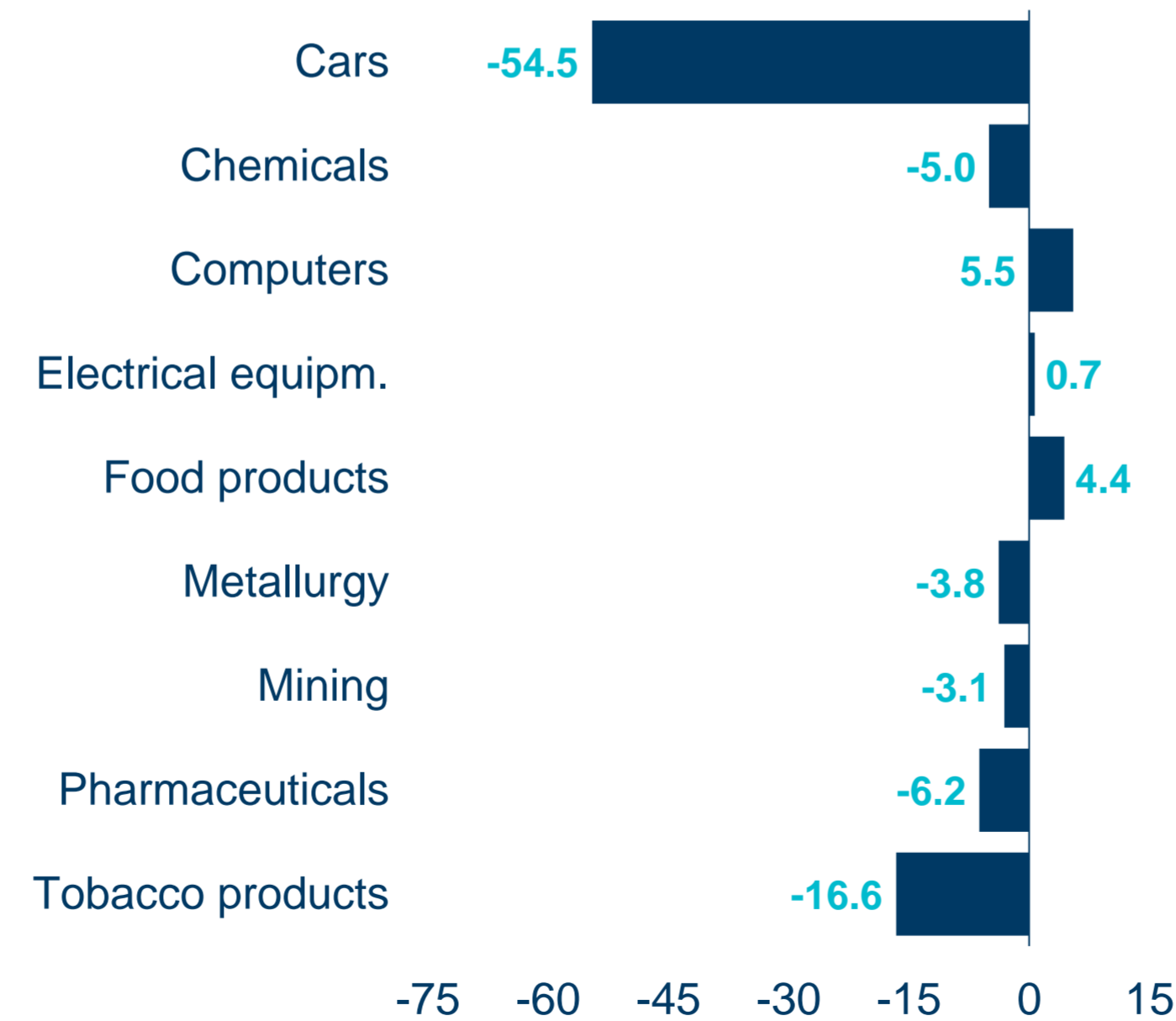
- High-frequency activity indicators point to noticeable and continued weaknesses in the Russian economy.
- Retail sales show a recovery in recent months, which is consistent with the bounce back in the services PMI.
- Sectoral performance differs considerably with car production and pharmaceuticals under the most pressure.

Activity indicators vs. December 2021, in %



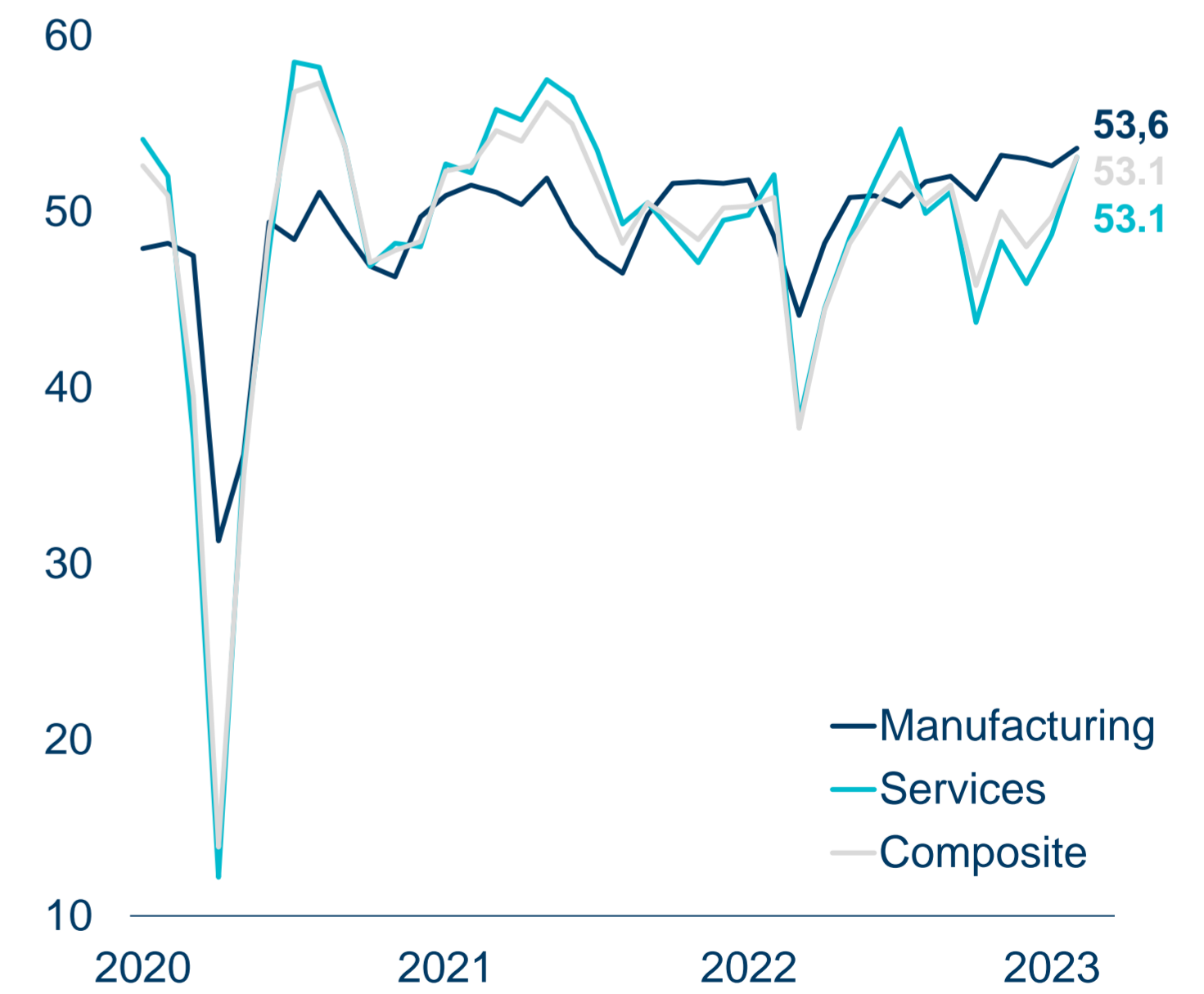
Source: Rosstat, KSE Institute

Sectoral production, in % year-over-year\*



Source: Rosstat, KSE Institute \*as of November 2022

PMIs, index (50+ = expansion)



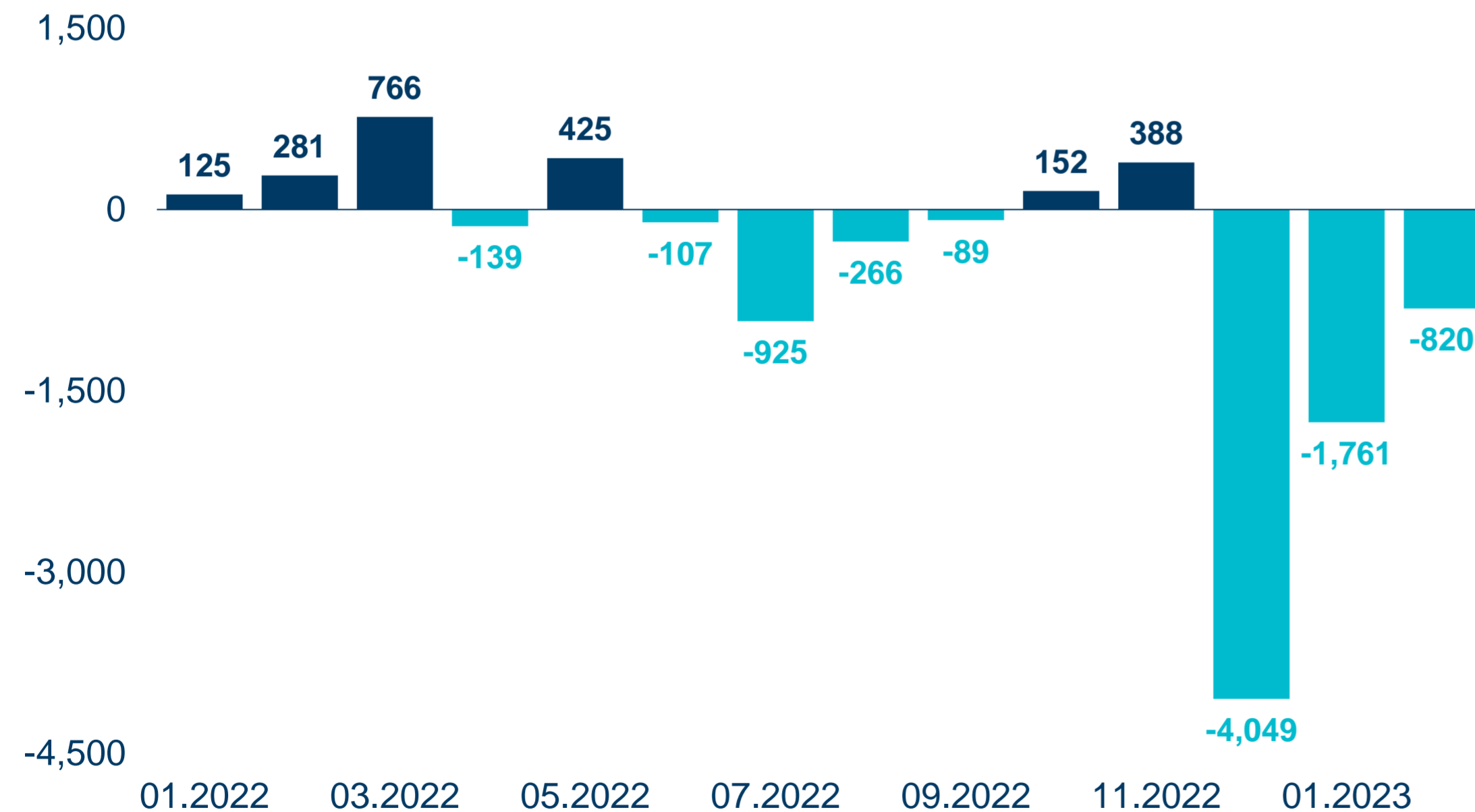
Source: S&P Global, KSE Institute

**Government finances have emerged  
as the primary area of macro concern.**

## Fiscal picture continues to deteriorate in the first months of 2023.

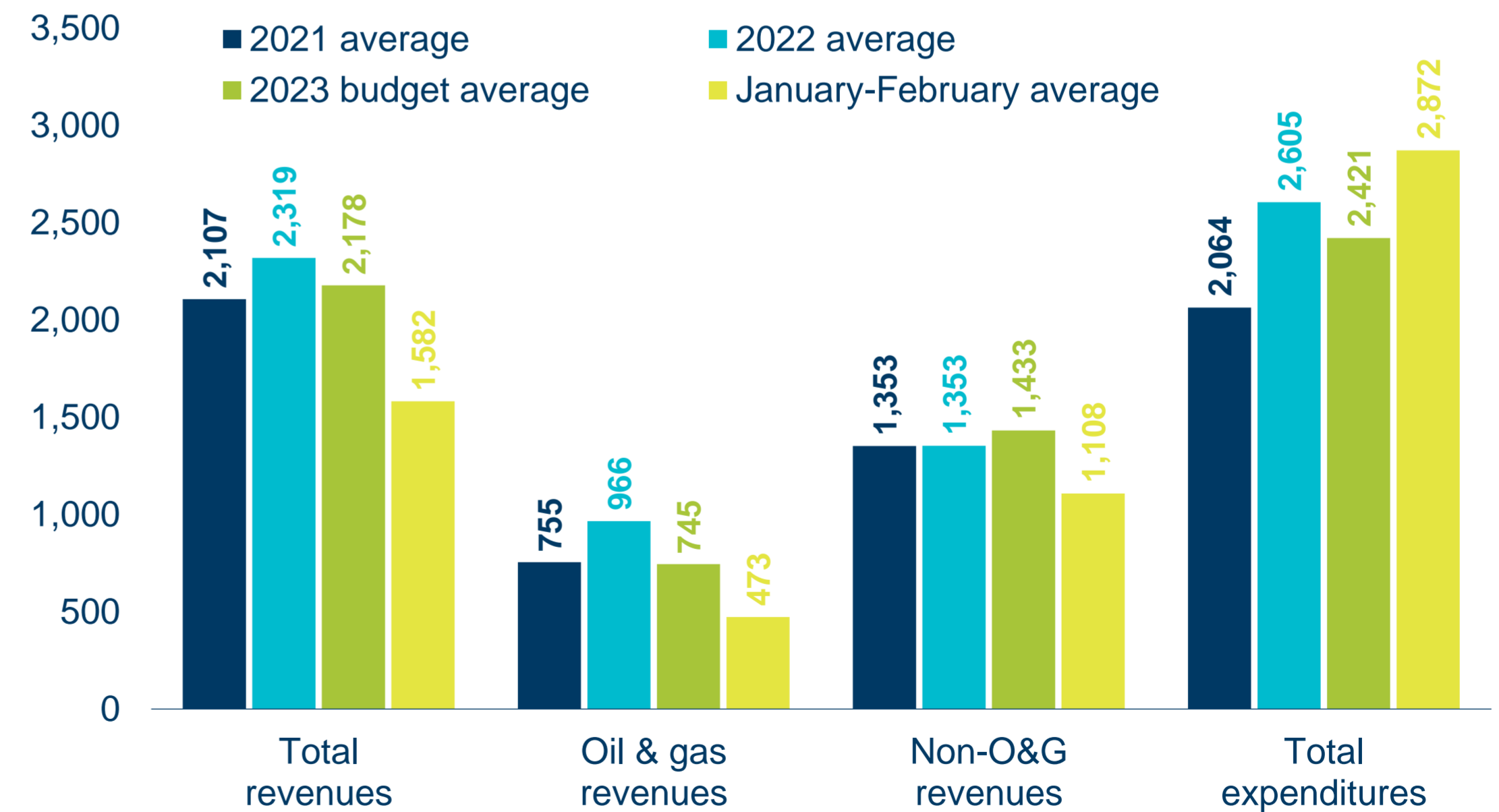
- Russia’s Ministry of Finance reported a deficit of 2.6 trillion rubles in January-February—or ~90% of the full-year target.
- This comes on the heels of the largest single-month deficit on record in December of more than 4 trillion rubles.
- Key drivers are revenue underperformance—most notably oil and gas receipts—and elevated expenditures due to the war.

Federal government balance, in ruble billion



Source: Ministry of Finance, KSE Institute

Revenues and expenditures, in ruble billion

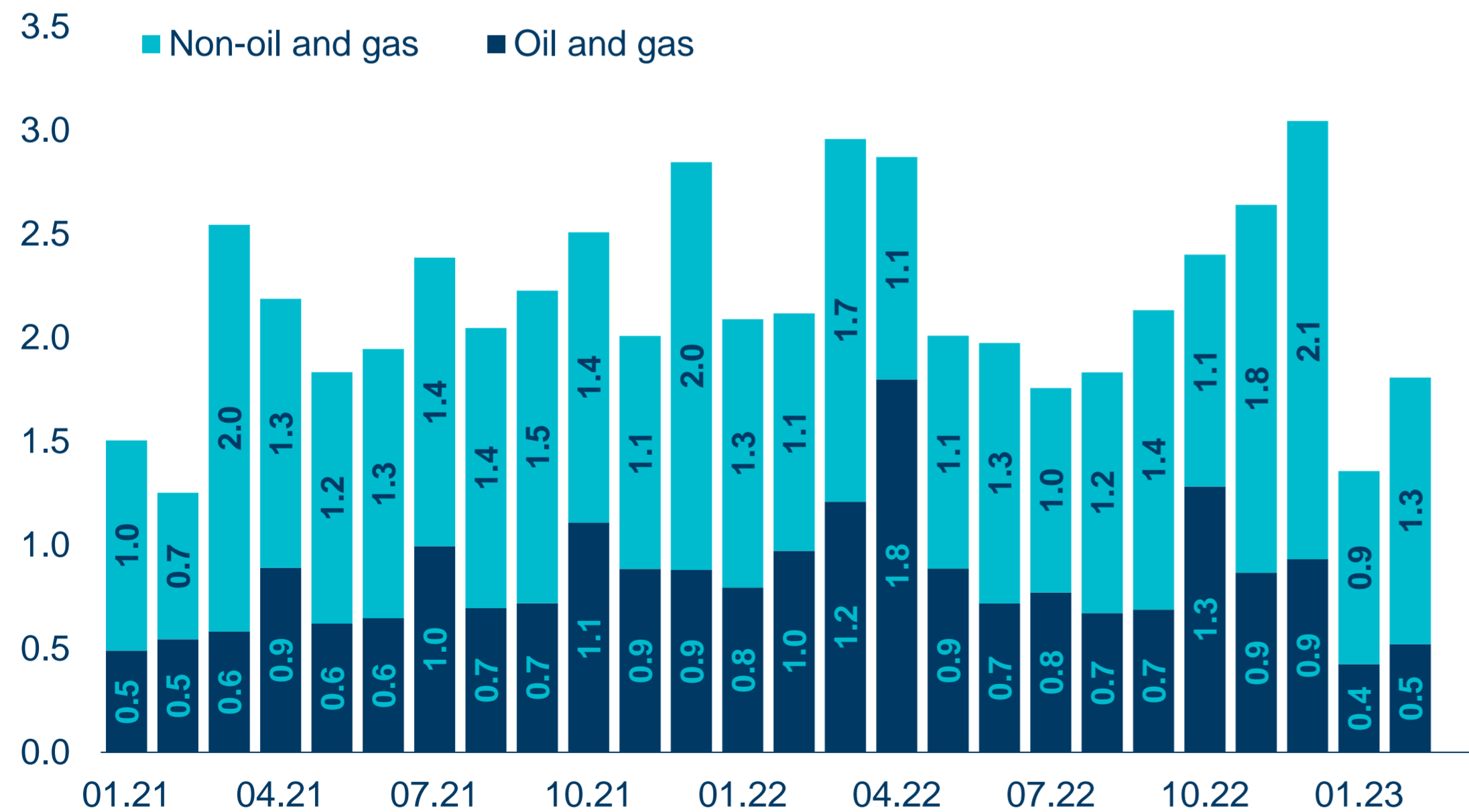


Source: Ministry of Finance, KSE Institute

## The drop in oil and gas revenues is prompting changes to the tax code.

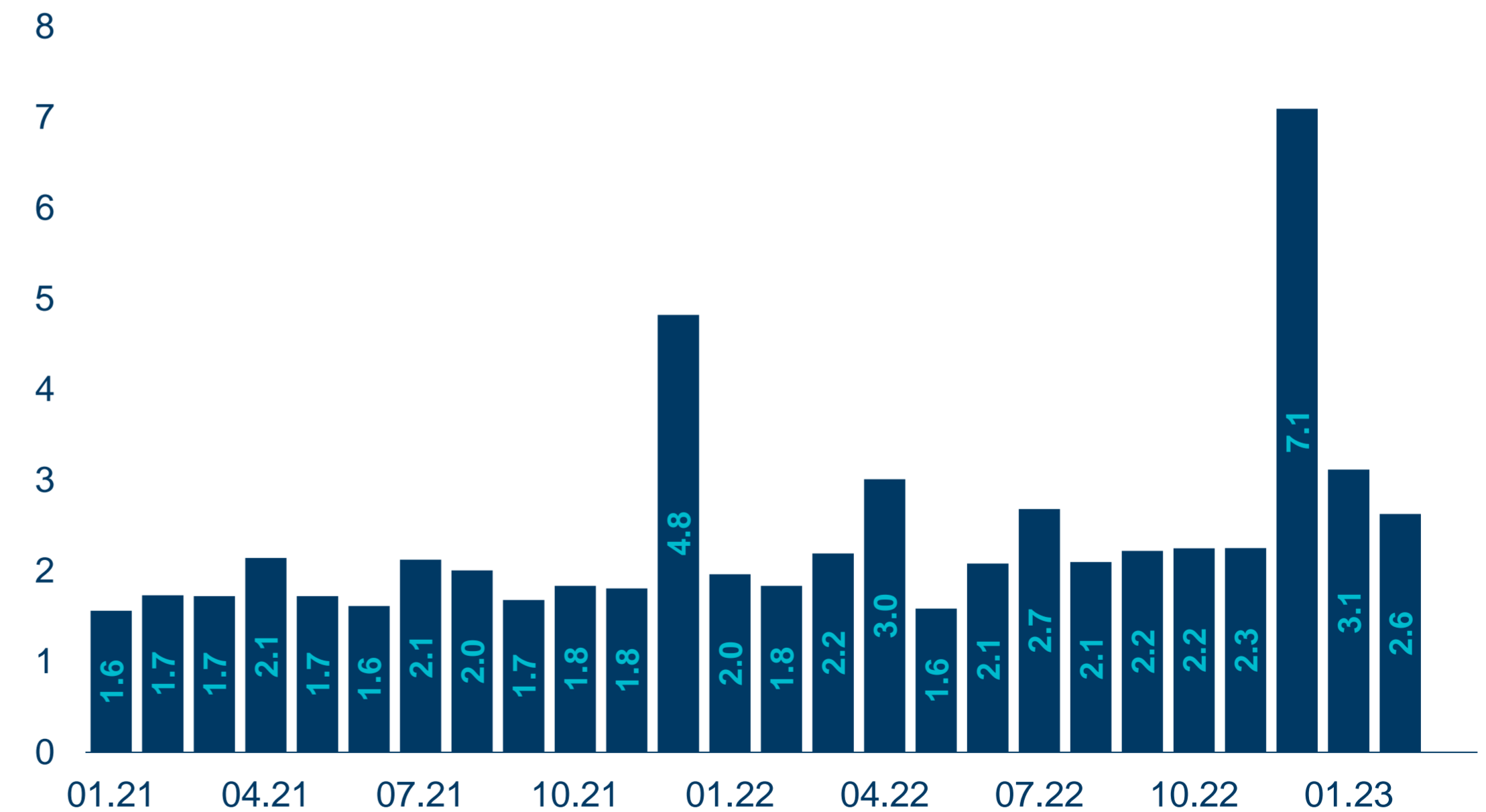
- Oil and gas revenues over January-February came in 45% below their level in the corresponding months of 2022.
- Russian authorities are changing the benchmark tax oil as large discounts for Urals heavily weighed on tax receipts.
- However, we believe that this will only result in 600 billion rubles in additional revenues—not enough by a long shot.

Federal budget revenues, in ruble trillion



Source: Ministry of Finance, KSE Institute

Federal budget expenditures, in ruble billion

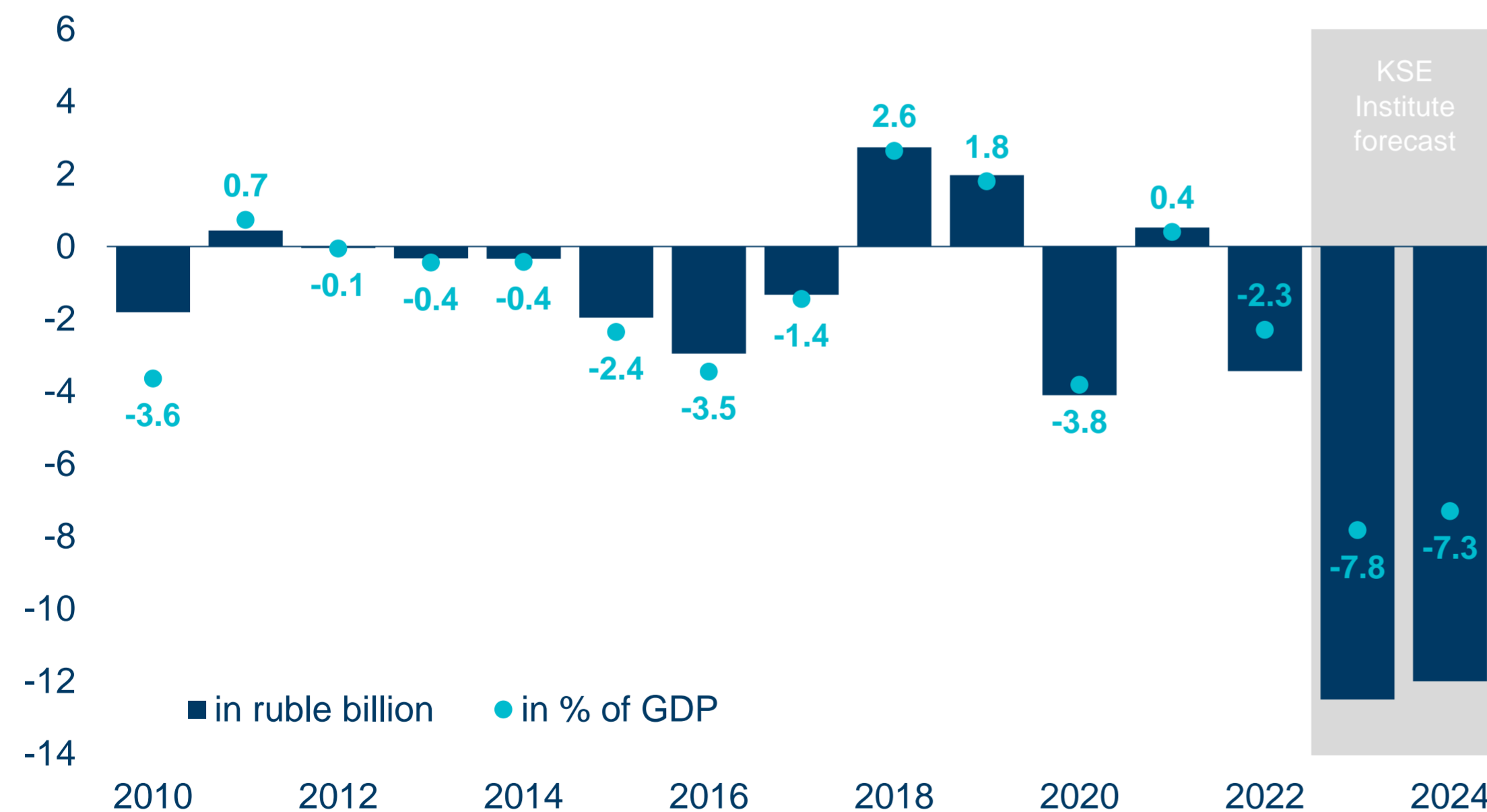


Source: Ministry of Finance, KSE Institute

## Russia is facing a deficit 3-4 times as large as last year.

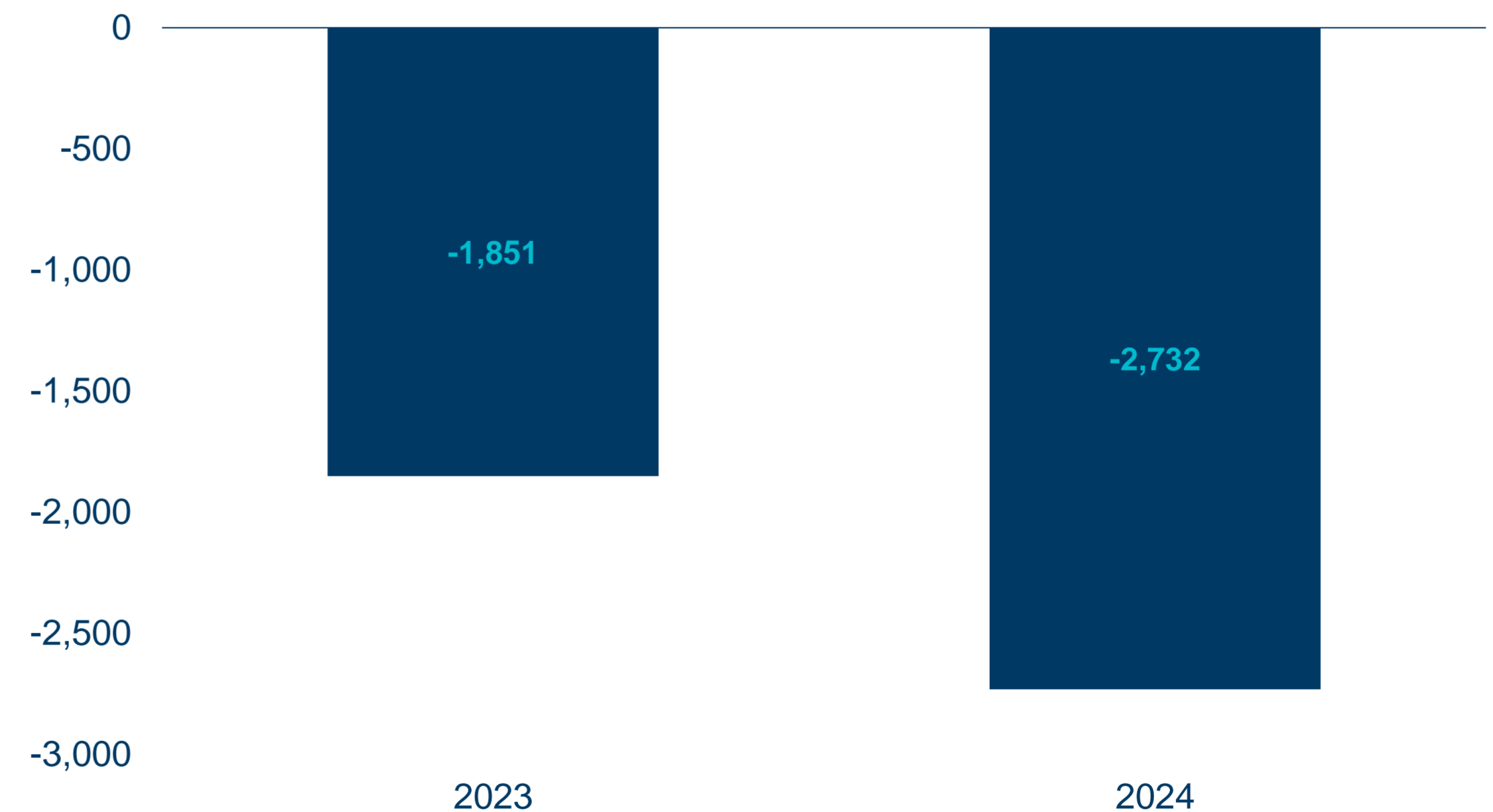
- Due to the January-February outturn, we revise our deficit forecast for 2023 to ~12.5 trillion rubles (from 10 trillion).
- This assumes revenues 20% below and expenditures 15% above what was planned in the original 2023 budget.
- In our view, fiscal accounts are so off track that a supplementary budget will be needed in the coming months.

Federal budget balance, in ruble trillion and % GDP



Source: Ministry of Finance, KSE Institute

Oil and gas revenues vs. baseline scenario, in ruble billion\*



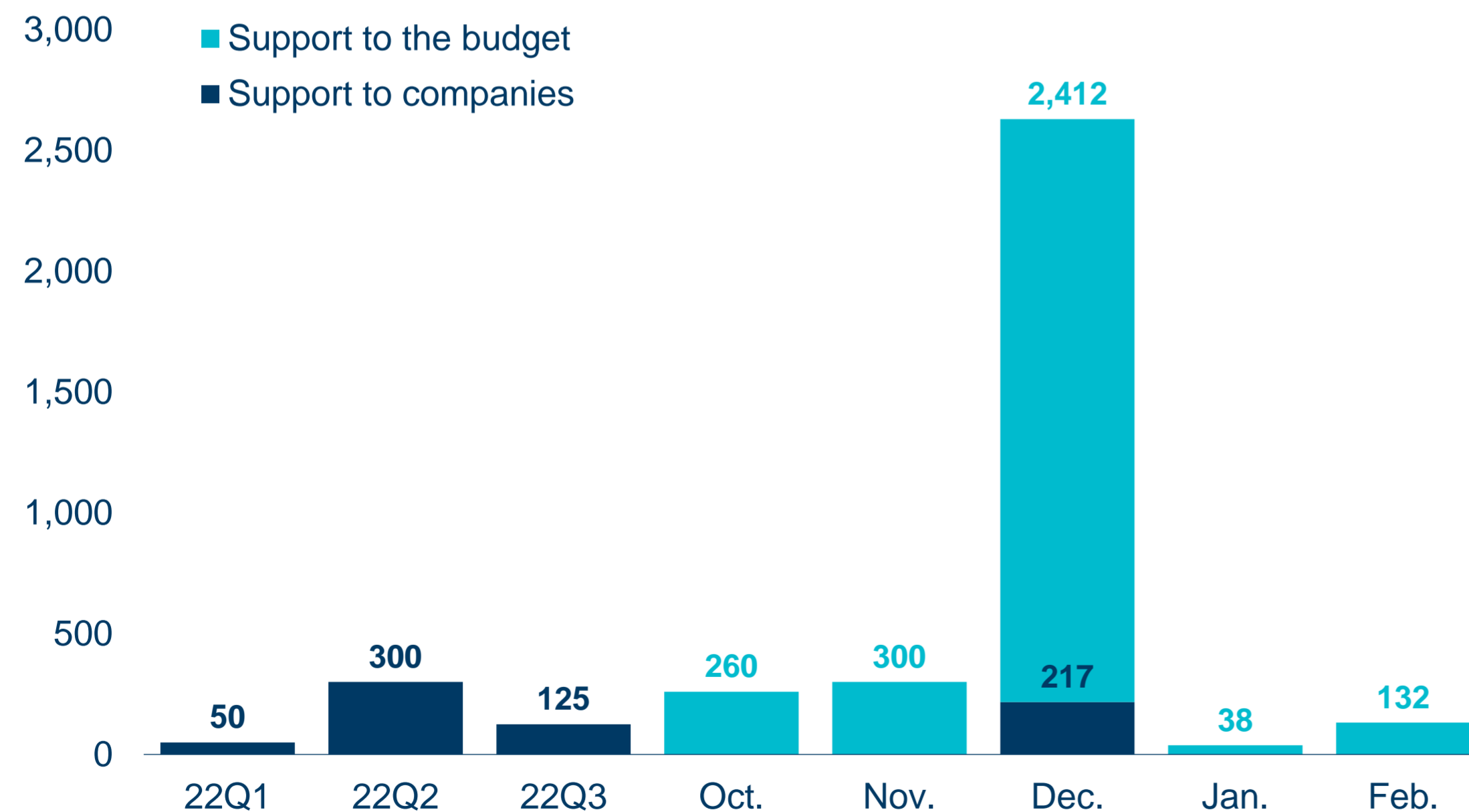
Source: KSE Institute \*see scenario outlined [here](#)

**Rising financing needs eat up important buffers and drive-up debt service costs.**

## Russia relied extensively on the NWF for budgetary support in 2022.

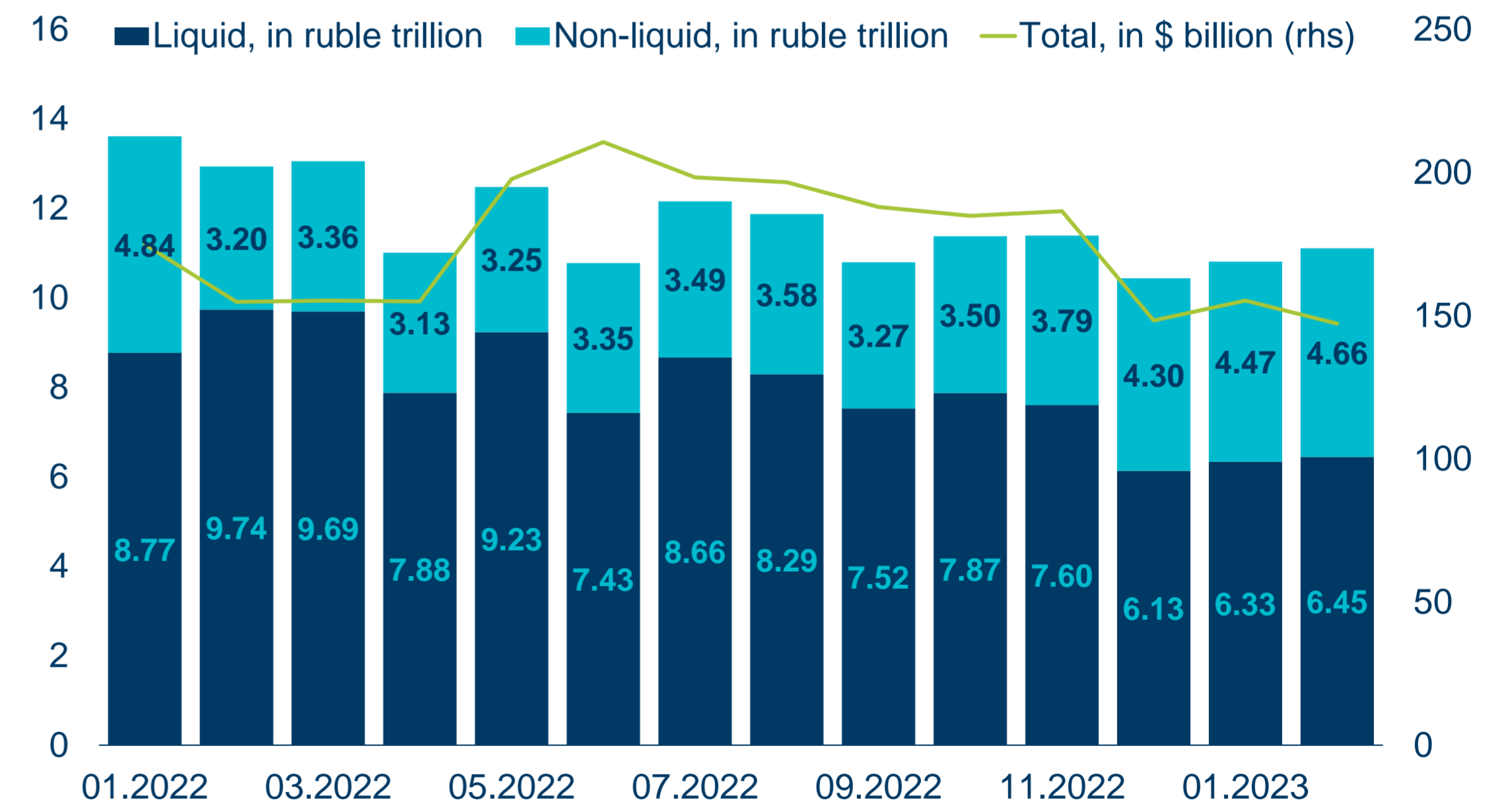
- Russia has spent 3.7 trillion rubles (~\$53 billion) to support the budget and struggling companies since the start of the war.
- As a result, NWF assets dropped by 3.2 trillion rubles to 10.4 trillion rubles (\$148.4 billion or 7.8% of GDP).
- Importantly, roughly 40% of the remaining holdings are not liquid and cannot easily be repurposed for the budget.

Utilization of the NWF, in ruble billion



Source: Ministry of Finance, KSE Institute

Assets of the NWF, in ruble billion and U.S. dollar billion



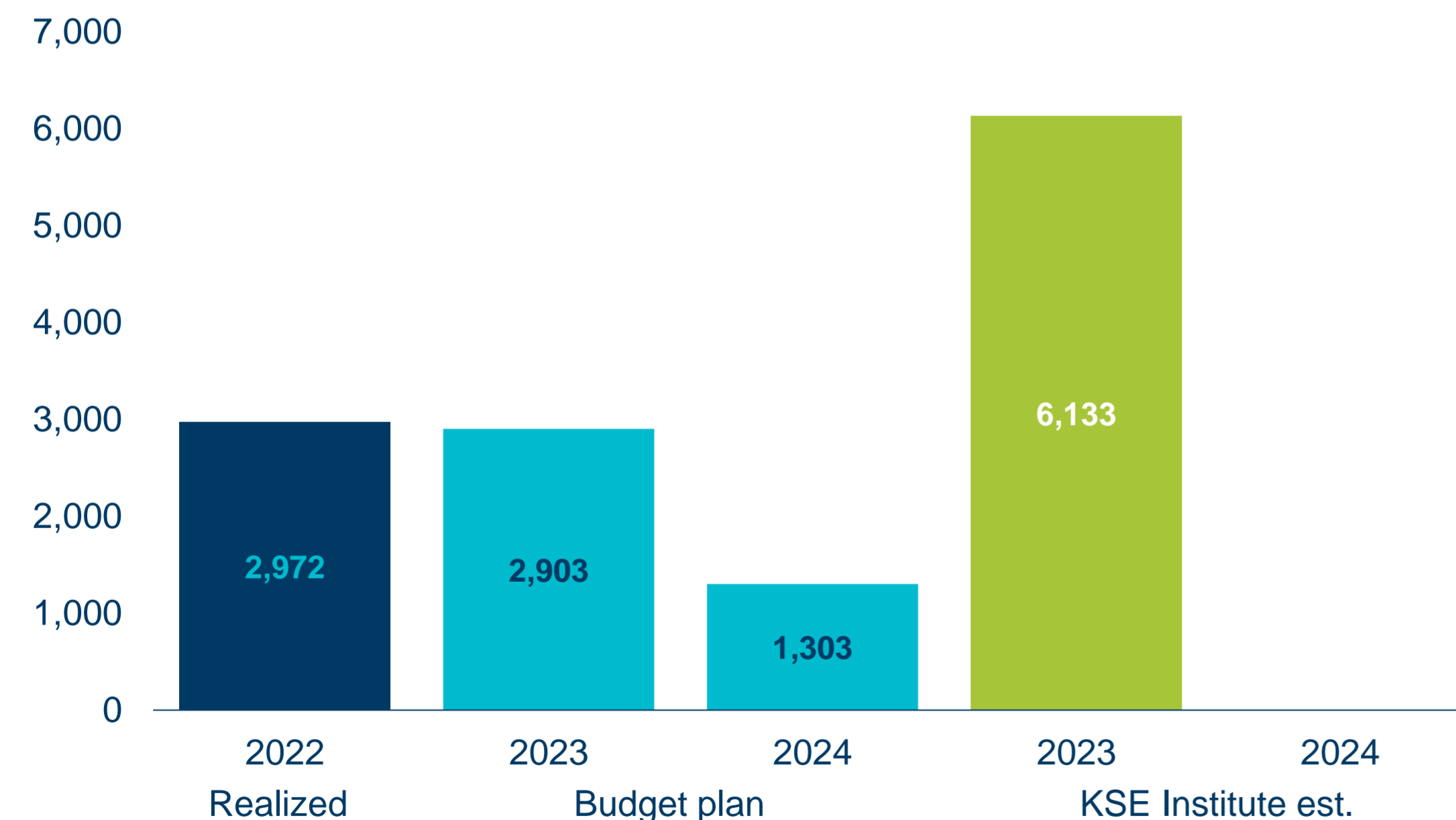
Source: Ministry of Finance, KSE Institute



## Further use of the NWF for government financing will deplete buffers.

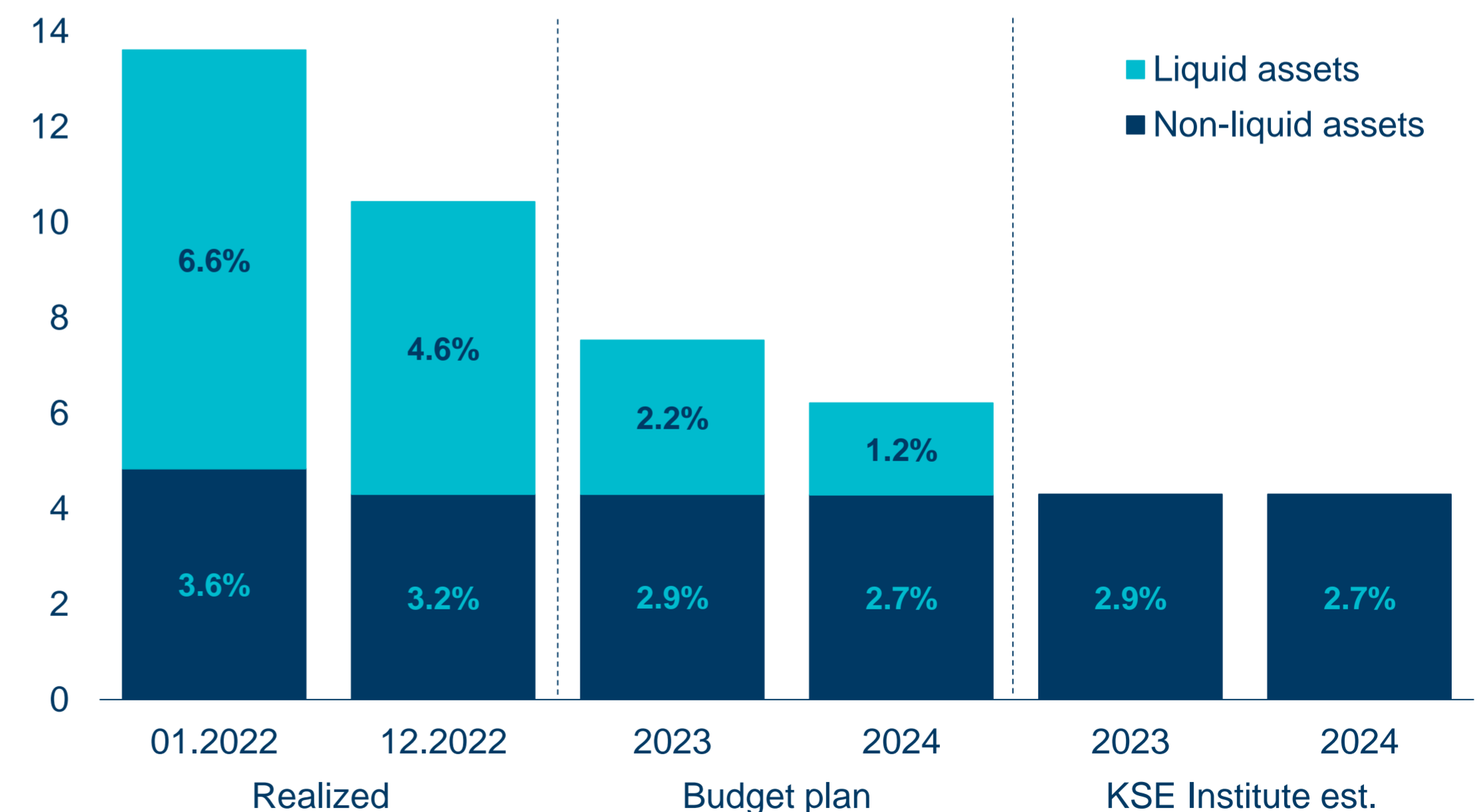
- Current law allows for an additional 4.2 trillion rubles (~\$60 billion) from the NWF to be used for the budget this year and next.
- This would reduce the liquid share of this critical macro buffer to around 1.9 trillion rubles (1.2% of GDP) by end-2024.
- In our view, however, significantly larger financing needs will deplete the liquid portion of the NWF sometime this year.

NWF support to the budget in 2022-24, in ruble billion



Source: Ministry of Finance, KSE Institute

Projected NWF assets, in ruble billion (labels display % of GDP)

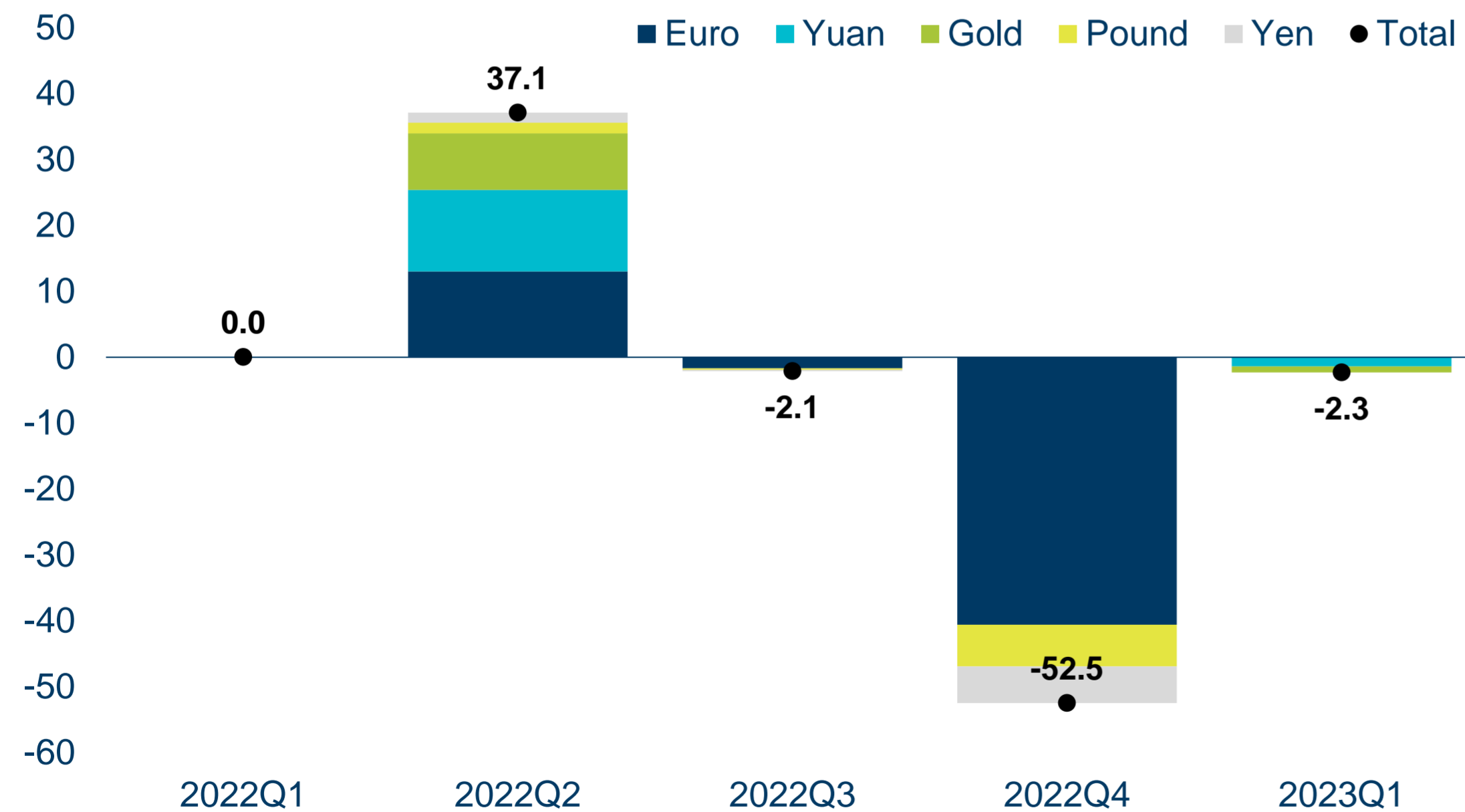


Source: Ministry of Finance, KSE Institute

## The composition of the remaining liquid assets could be a challenge.

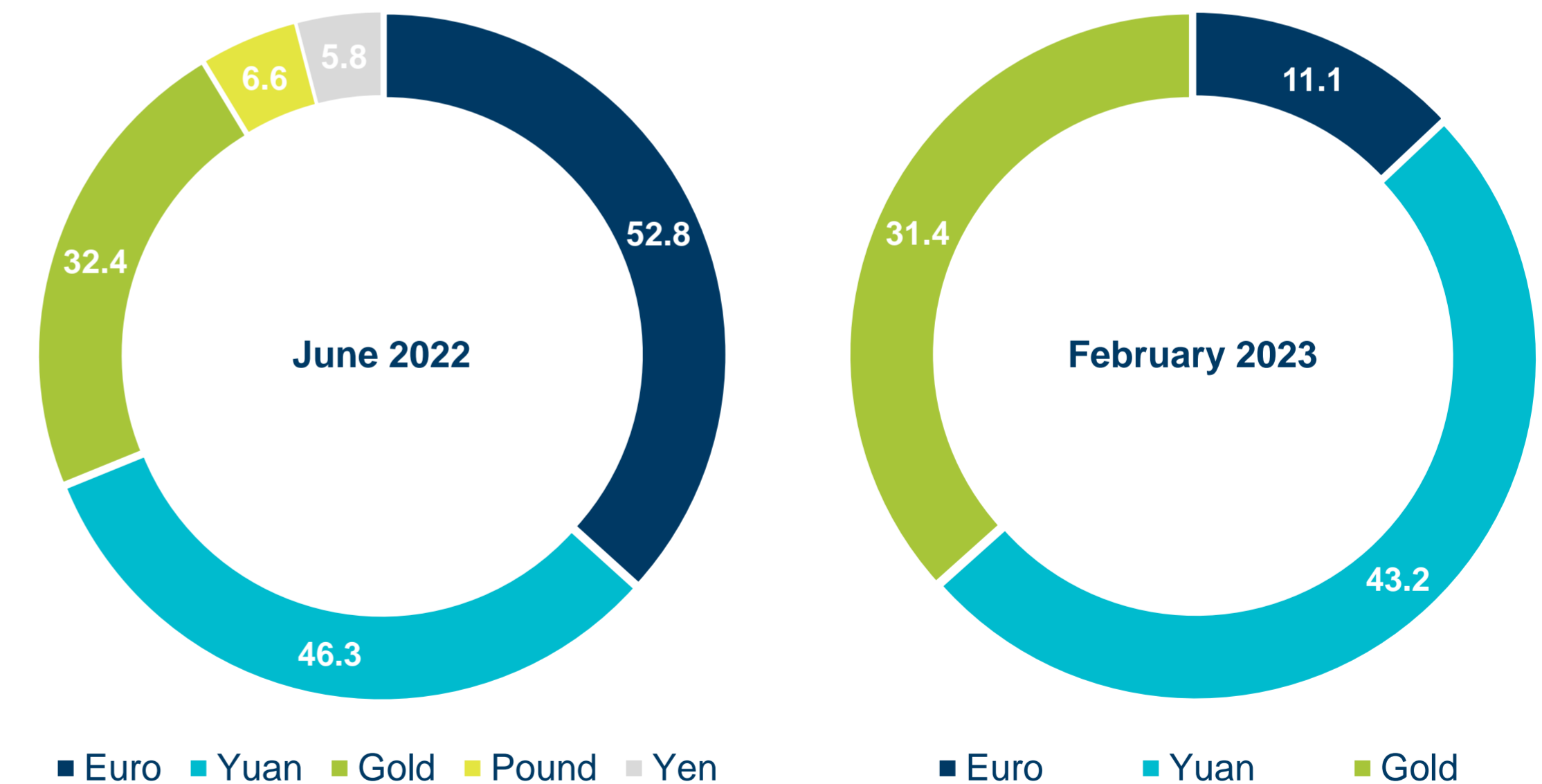
- The remaining liquid part of the NWF consists overwhelmingly of gold and yuan-denominated assets.
- Authorities sold-off most of fund's euro-denominated assets, and all pound- and yen-denominated assets in December.
- This means that government funding via the NWF could be impeded by the challenge of selling assets at scale.

Change in liquid NWF assets, in U.S. dollar billion\*



Source: Ministry of Finance, KSE Institute \*based on market exchange rates

Liquid NWF assets, in % (labels show U.S. dollar billion)\*

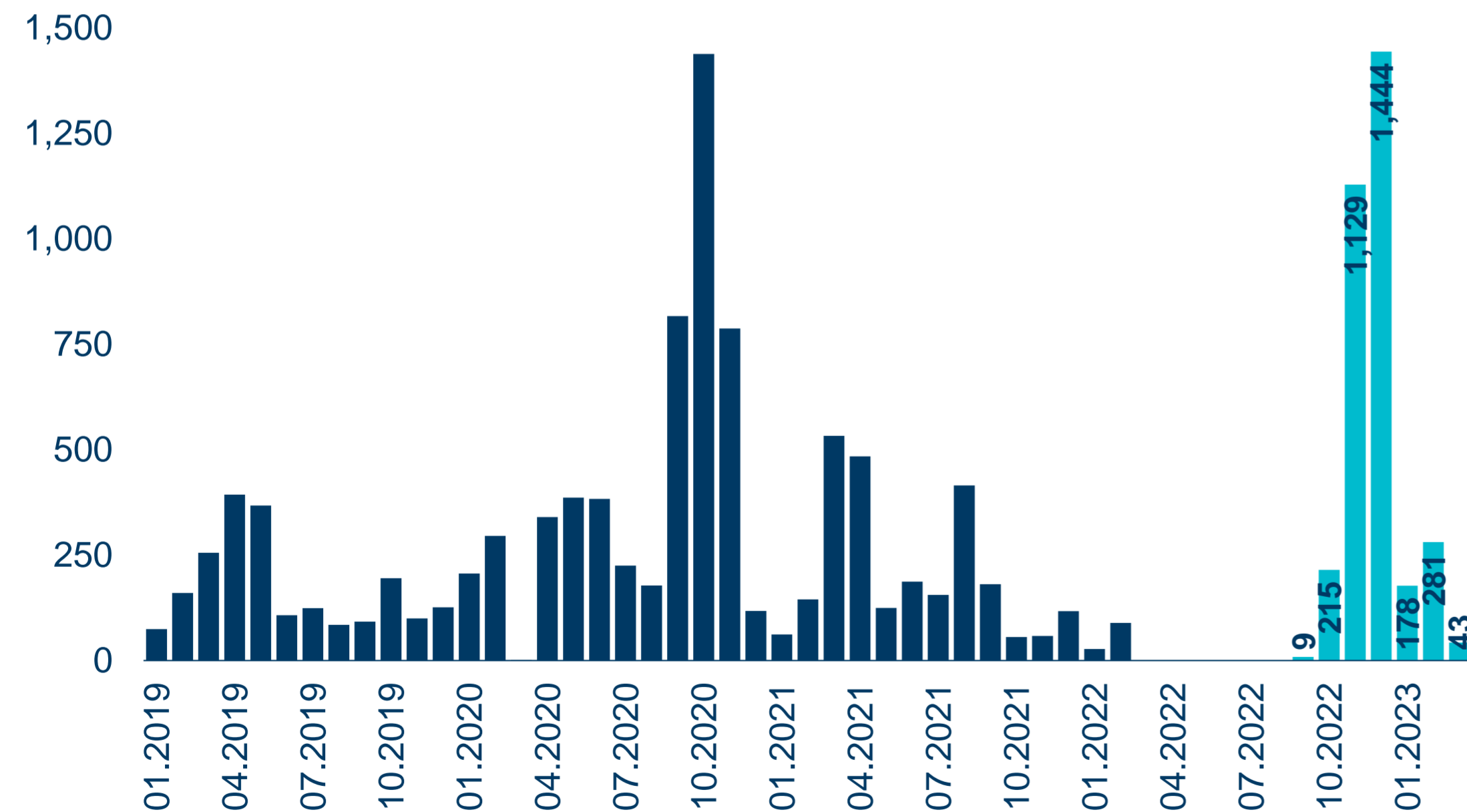


Source: Ministry of Finance, KSE Institute \*based on market exchange rates

## Russia will have to rely heavily on borrowing in the domestic market.

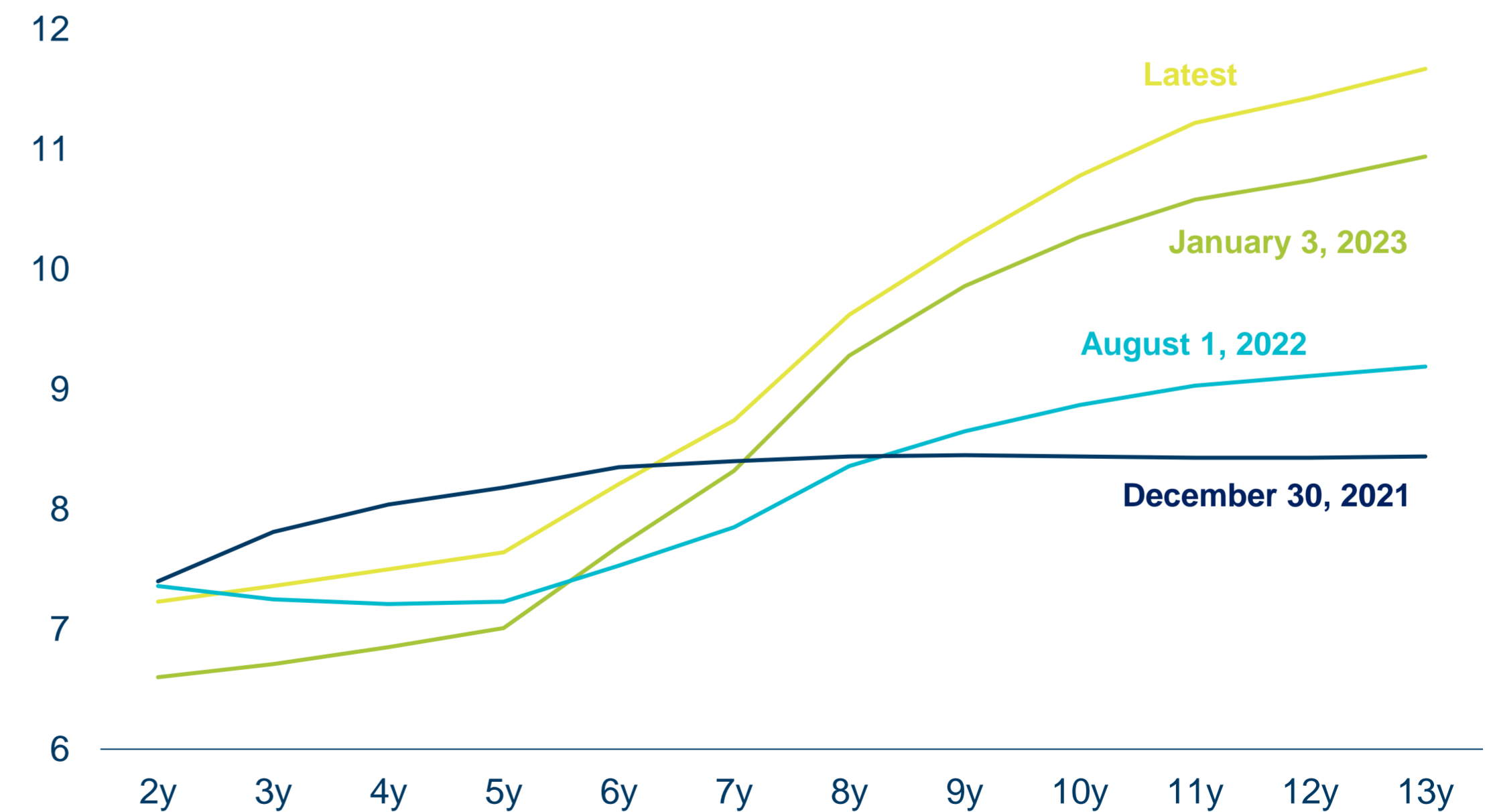
- In addition to NWF use, the Ministry of Finance issued a record 2.8 trillion rubles (~\$47 billion) in OFZ in 2022Q4 alone.
- Issuance in Q1 was lower, but wider deficits will leave no other option but to rely on domestic borrowing in coming months.
- Rising OFZ yields show that this will not be an easy undertaking—in fact, recent auctions displayed signs of trouble.

New domestic debt (OFZ) issuance, in ruble billion



Source: Ministry of Finance, KSE Institute

OFZ yield curves, in %

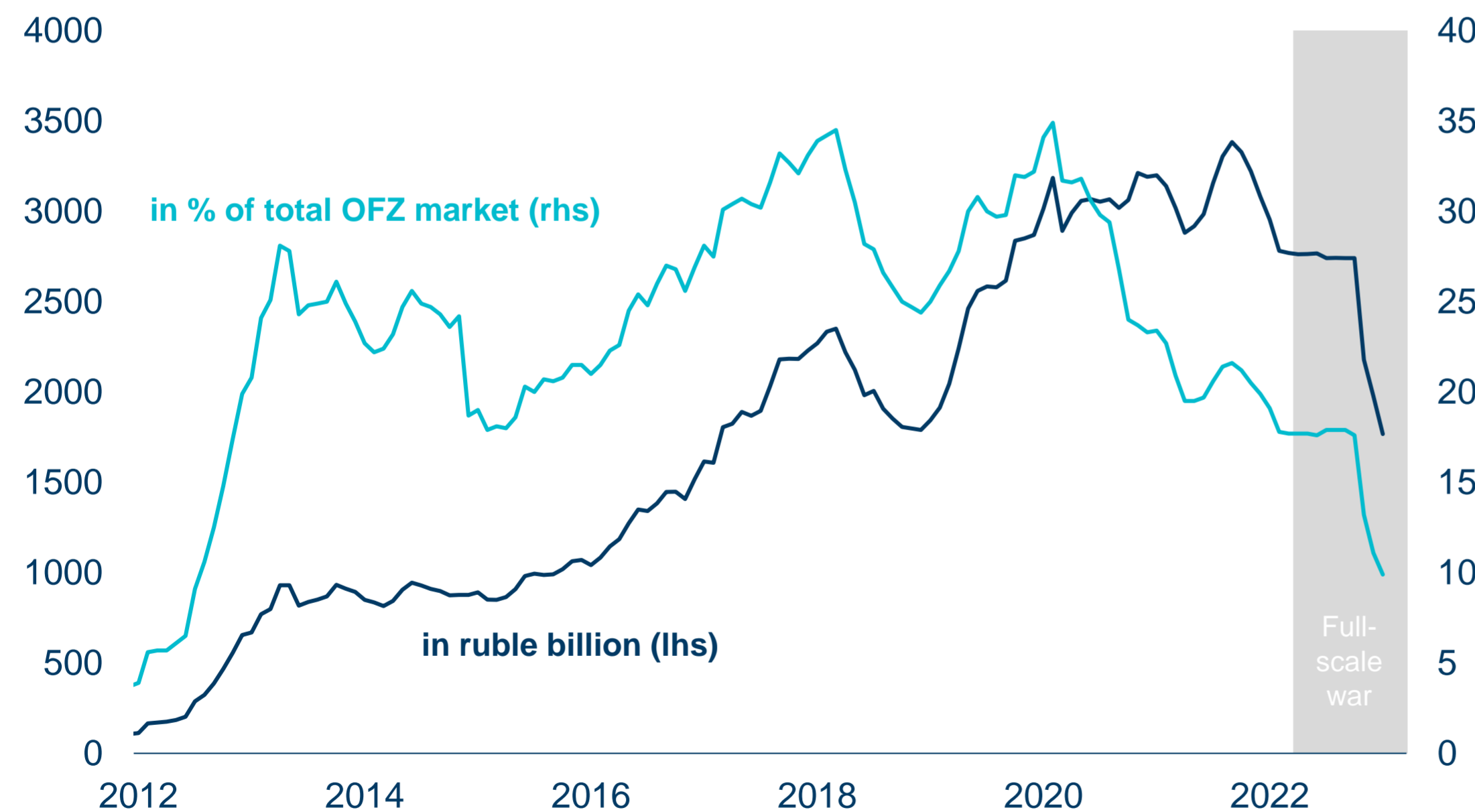


Source: Bank of Russia, KSE Institute

## The banking system will have to bear most of the burden.

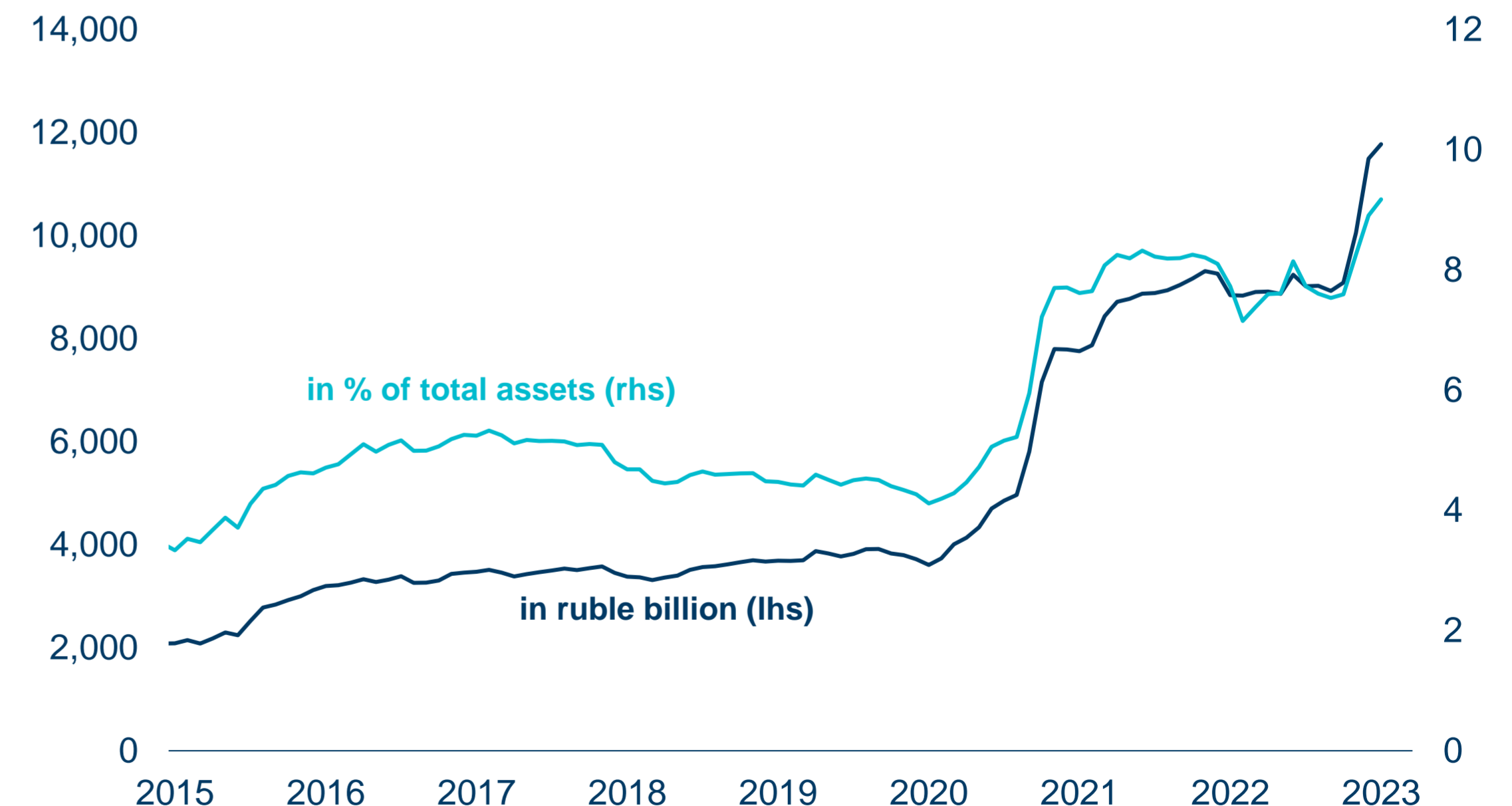
- Foreigners have largely disengaged from the Russian sovereign debt market since the start of the war.
- Following a period with little movement, remaining holdings dropped sharply in November-January (by ~35%).
- With foreigners no longer participating, domestic banks will need to bear even more of the financing burden.

Non-resident OFZ holdings



Source: Bank of Russia, KSE Institute

Credit institutions OFZ holdings

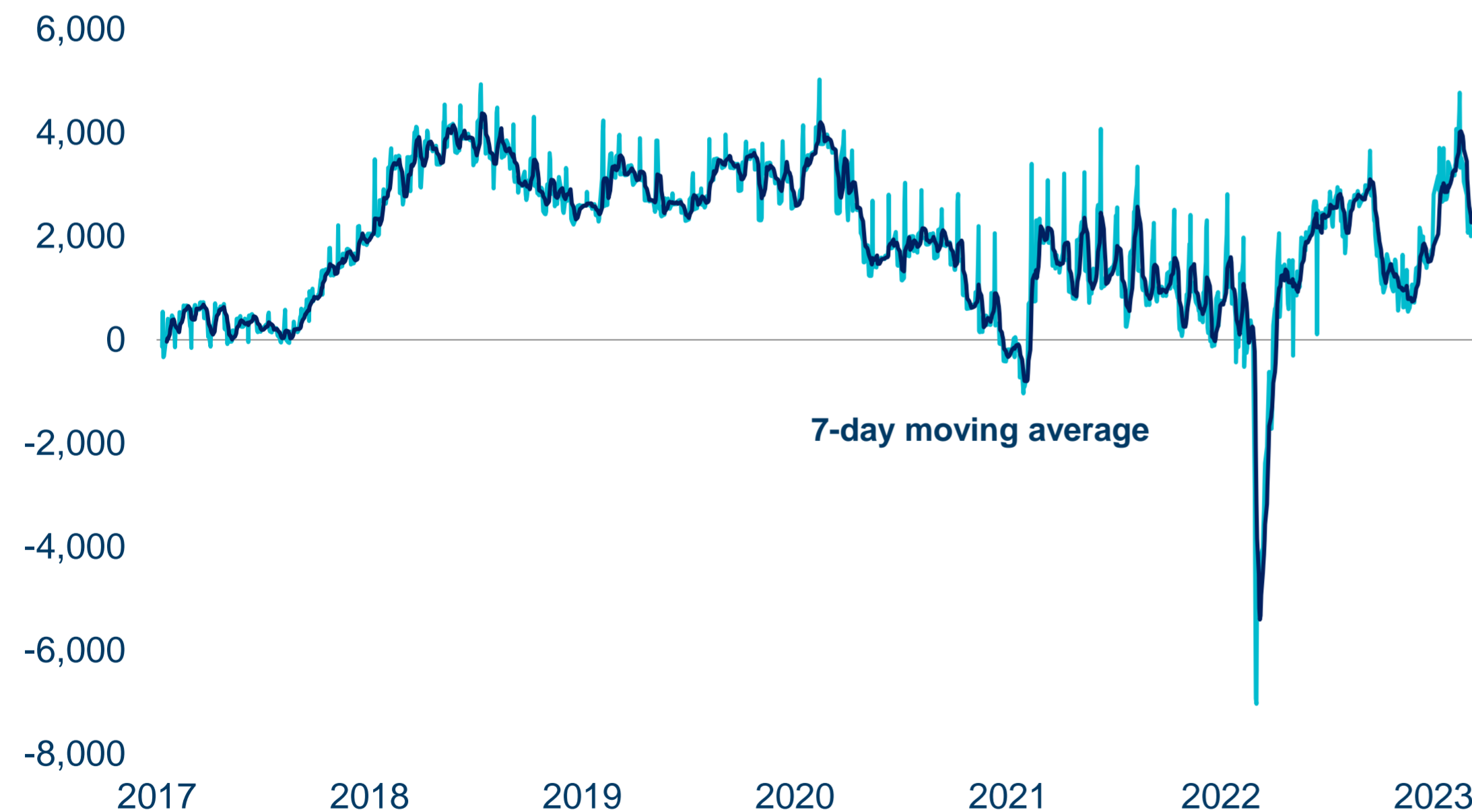


Source: Bank of Russia, KSE Institute

## Unprecedented financial sector sanctions did not trigger a systemic crisis.

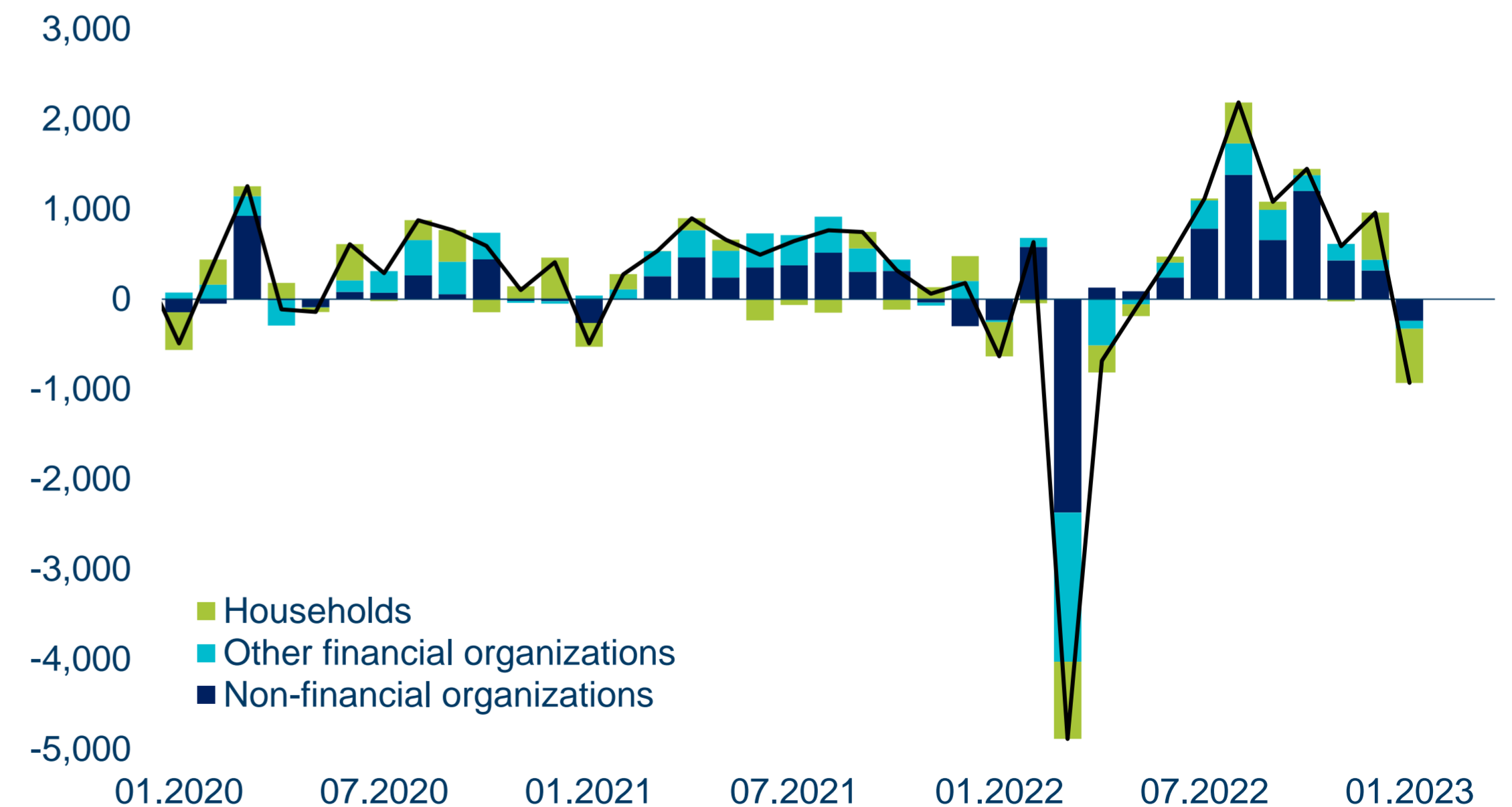
- Liquidity conditions recovered quickly after the initial shock from the war and imposition of sanctions.
- As a result, financial institutions continued to be able to provide the private sector with credit.
- However, in real terms, new ruble-denominated loans declined for the first time since last spring in January.

Banking system structural liquidity surplus, in ruble billion



Source: Bank of Russia, KSE Institute

New ruble-denominated credit, in 2020 ruble billion\*

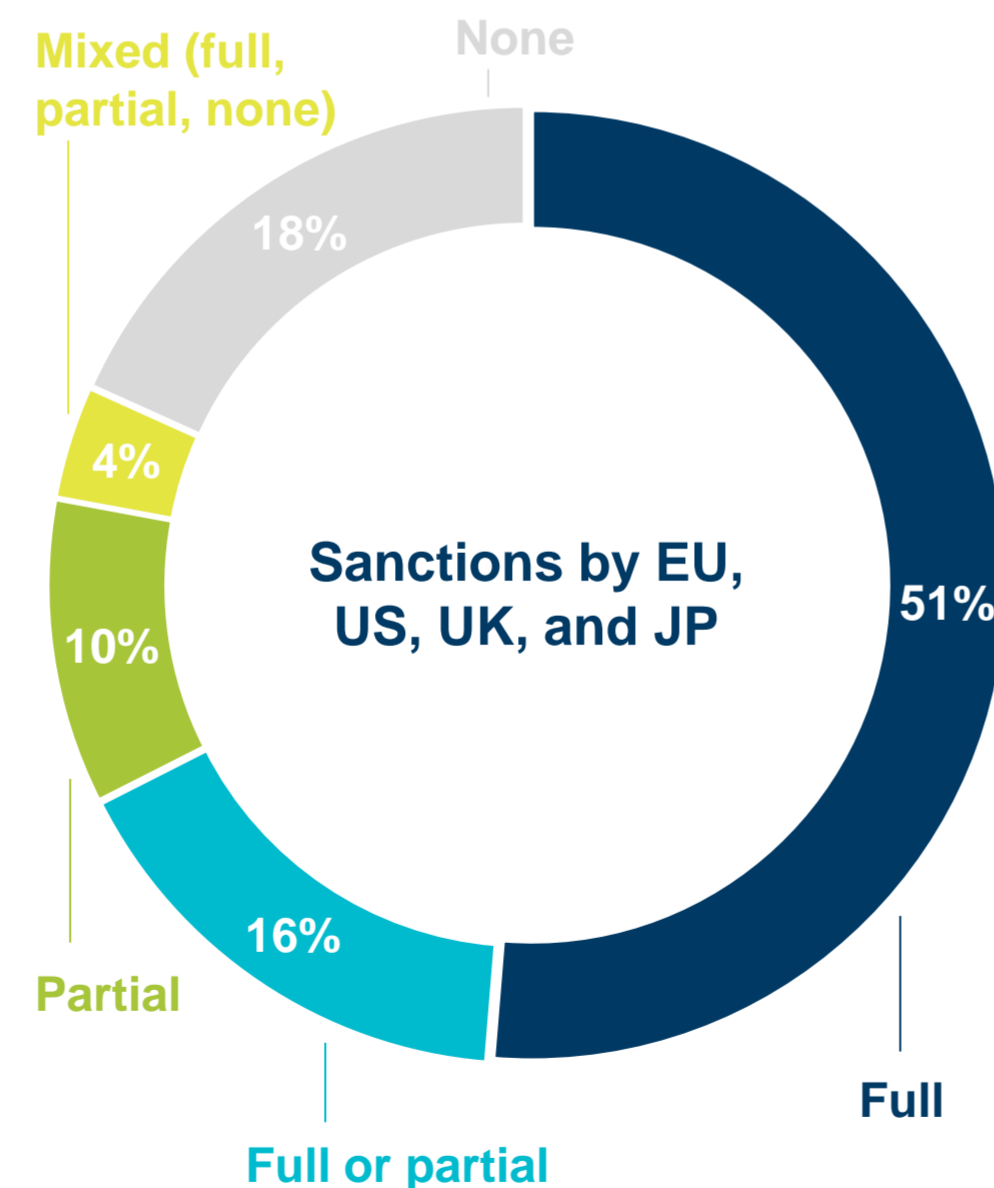
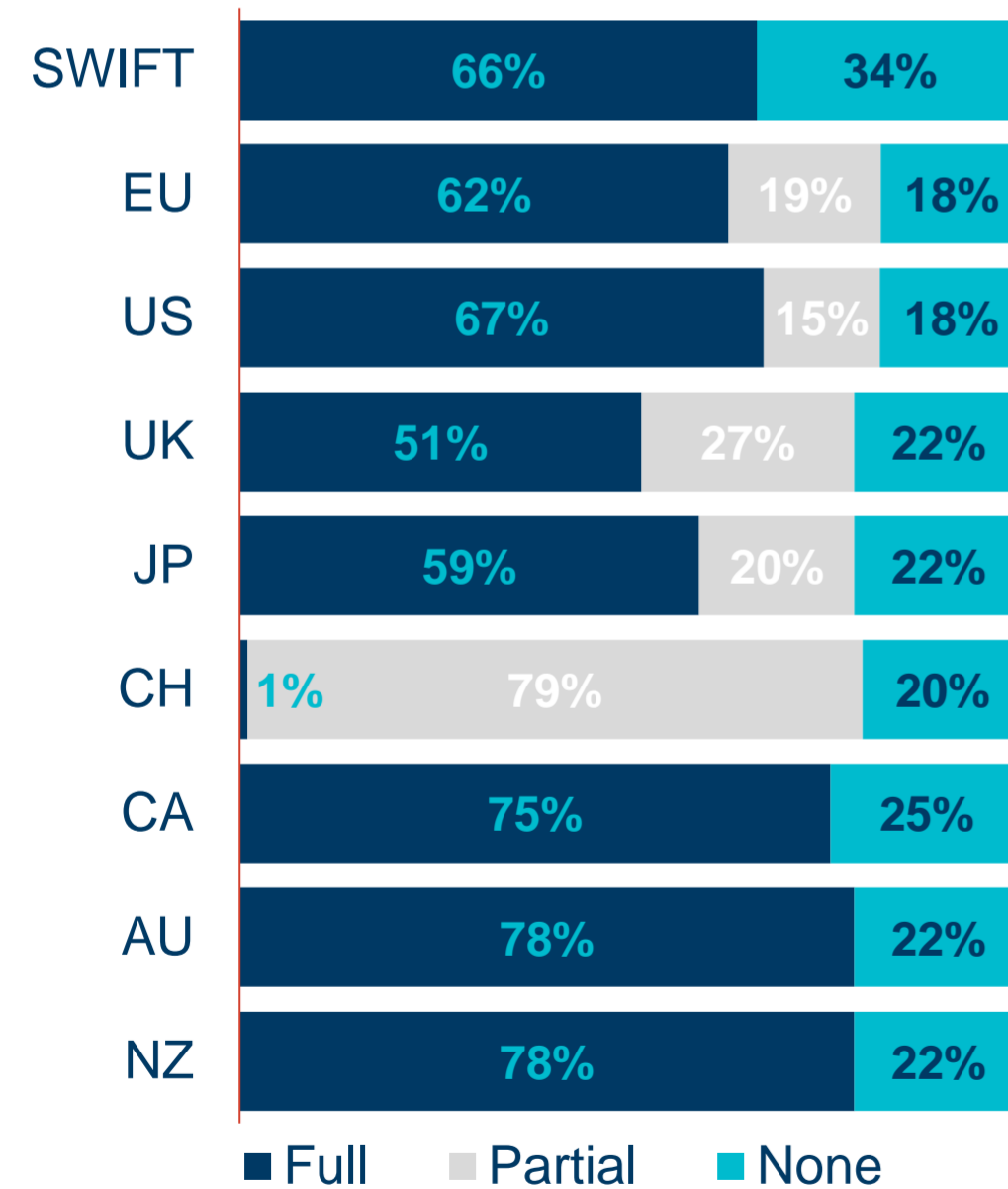


Source: Bank of Russia, KSE Institute \*deflated using CPI

## We see considerable room to strengthen the sanctions regime.

- The U.S., EU, and UK have imposed fairly comprehensive sanctions, but room for tightening remains.
- Arguments in favor of the exemption of Gazprombank are getting weaker as energy trade with Russia drops.
- Regulators should also set clear deadlines for the exit of foreign banks from the Russian market.

Sanctions coverage, in % of total banking system assets



Source: national authorities, KSE Institute

Summary of financial sector sanctions

	SWIFT	EU	US*	UK	JP	CH	CA	AU	NZ
Sberbank	●	●	●	●	●	●	●	●	●
VTB Bank	●	●	●	●	●	●	●	●	●
Gazprombank	●	●	●	●	●	●	●	●	●
Alfa-Bank	●	●	●	●	●	●	●	●	●
Roselkhozbank	●	●	●	●	●	●	●	●	●
Credit Bank of Moscow	●	●	●	●	●	●	●	●	●
Bank Otkritie	●	●	●	●	●	●	●	●	●
VEB	●	●	●	●	●	●	●	●	●
Promsvyazbank	●	●	●	●	●	●	●	●	●
Sovcombank	●	●	●	●	●	●	●	●	●
Rosbank	●	●	●	●	●	●	●	●	●
Tinkoff Bank	●	●	●	●	●	●	●	●	●
Bank Rossiya	●	●	●	●	●	●	●	●	●
Russian Reg. Dev. Bank	●	●	●	●	●	●	●	●	●

● – SWIFT ban/sanctioned, ● – partially sanctioned, ● – no SWIFT ban/not sanctioned

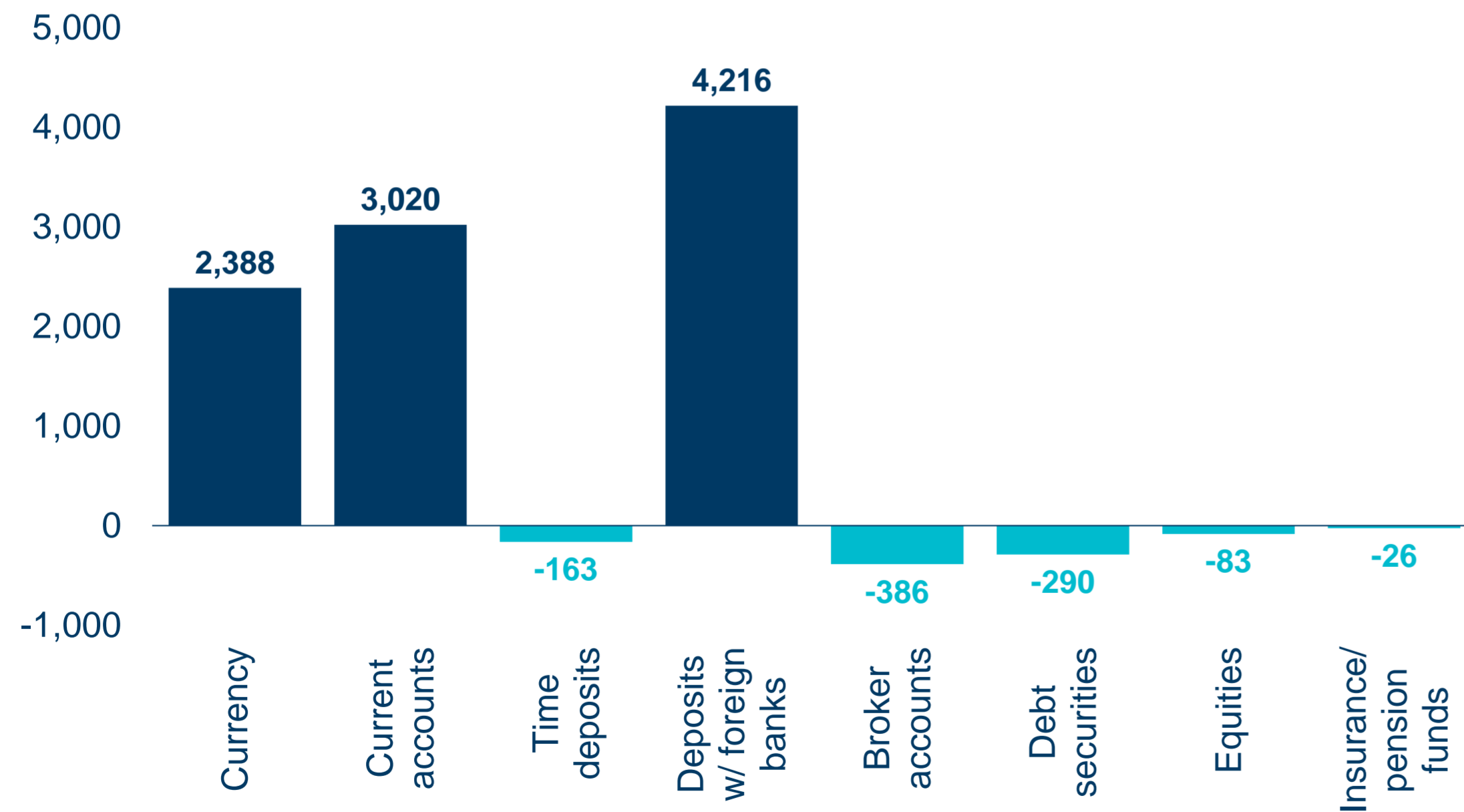
\*exceptions for energy transactions for Sberbank, VTB, Alfa, Otkritie, VEB, and Rosbank

Source: national authorities, KSE Institute

## Underlying vulnerabilities remain and could resurface quickly.

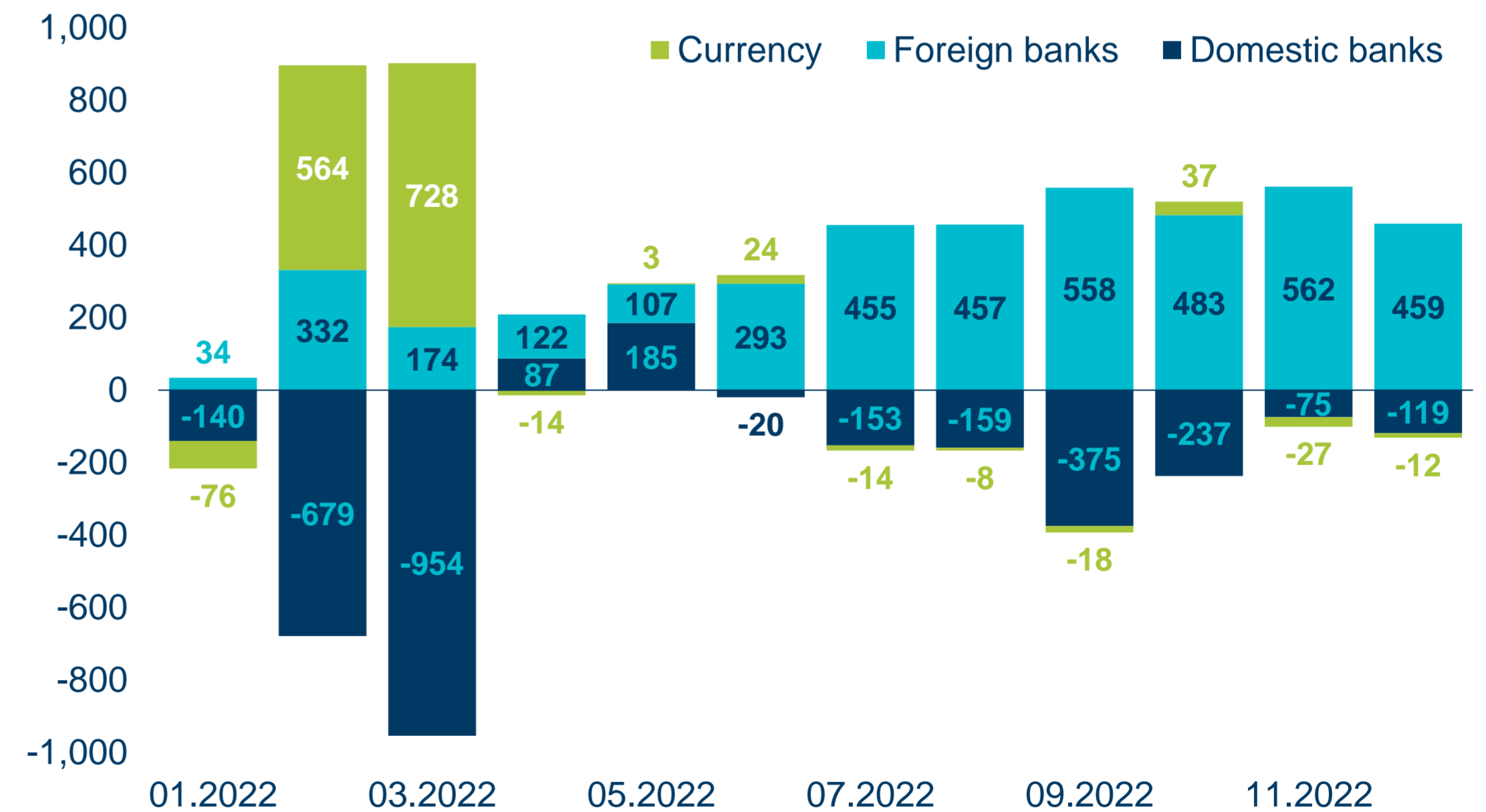
- While a systemic financial crisis was avoided, clear signs of vulnerabilities exist, including household asset movements.
- For instance, households moved funds from longer-term investments to cash holdings, current accounts, and foreign banks.
- As in previous crises, foreign currency was pulled from domestic banks—at the start of the war and surrounding mobilization.

Household assets since the start of the war, in ruble billion



Source: Bank of Russia, KSE Institute

Foreign currency cash and deposits, in ruble billion

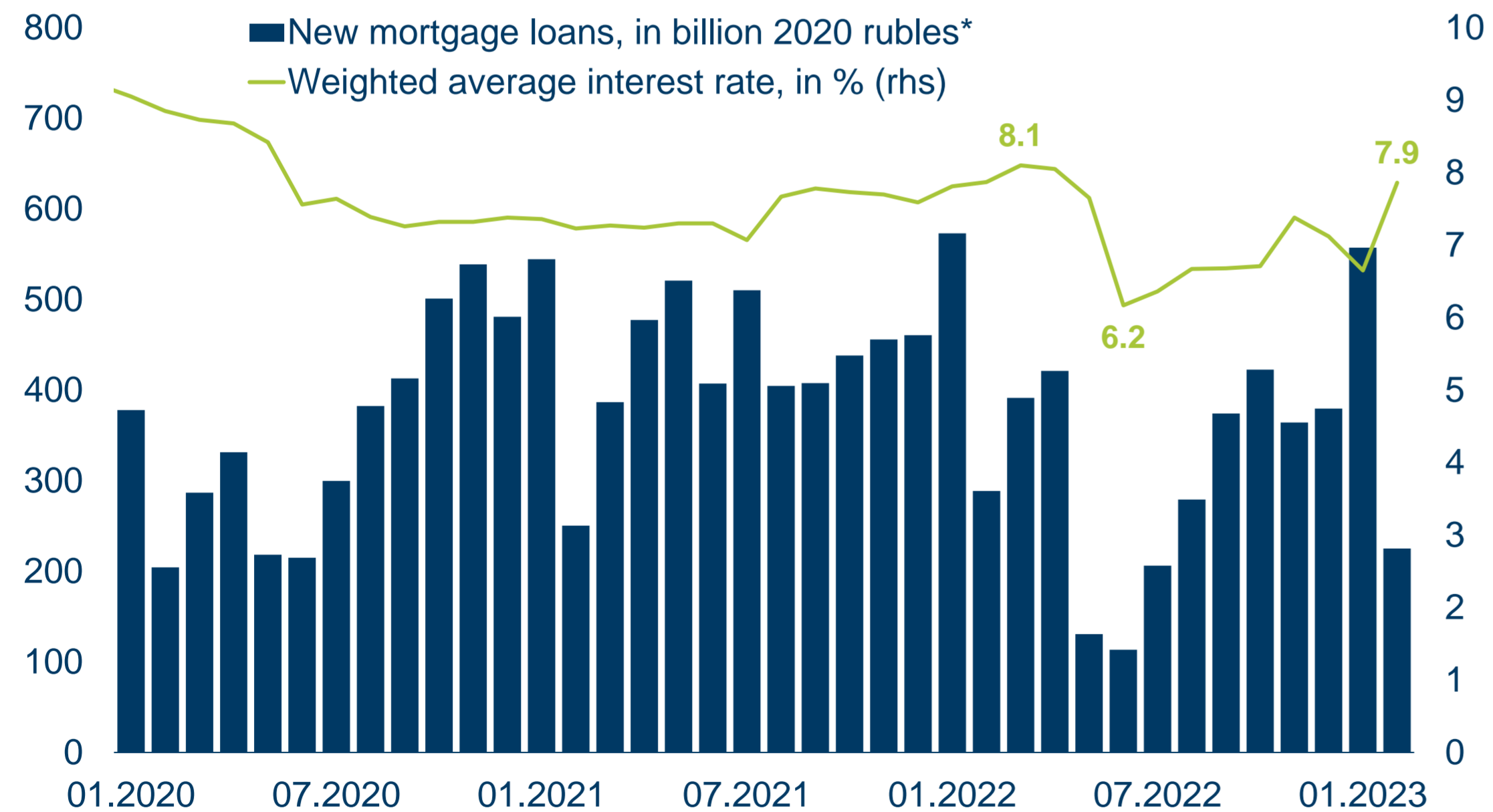


Source: Bank of Russia, KSE Institute

## Mortgage and consumer loans are rate sensitive.

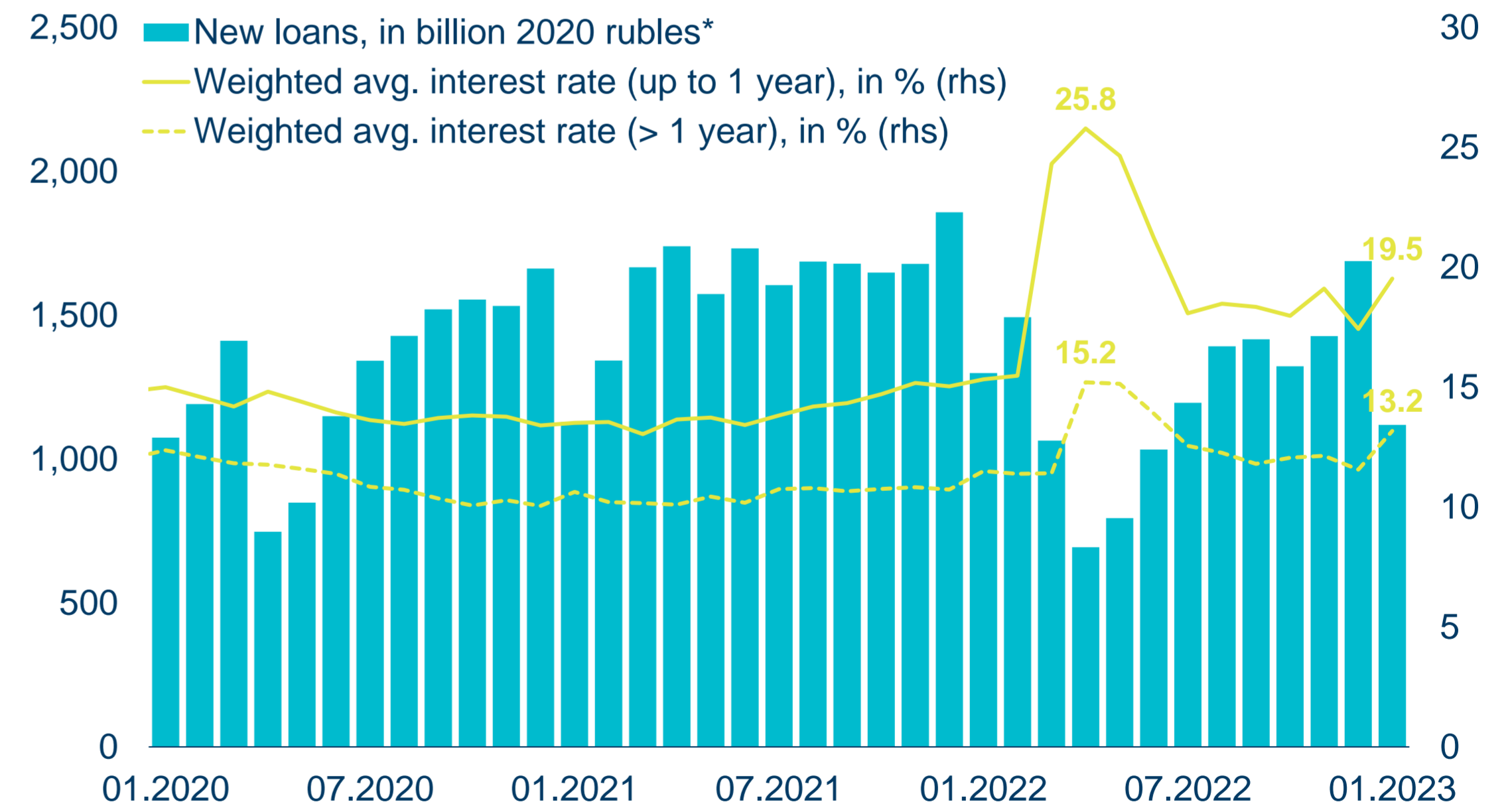
- Interest rates for mortgages and consumer loans have picked up—and new loan volumes dropped.
- With the CBR likely to tighten monetary policy in the coming months, interest rates will rise further.
- For rate-sensitive items, this means lower demand—which will weigh on overall economic activity.

### Mortgage loan statistics



Source: Bank of Russia, KSE Institute \*deflated using CPI

### Consumer loan statistics



Source: Bank of Russia, KSE Institute \*deflated using CPI

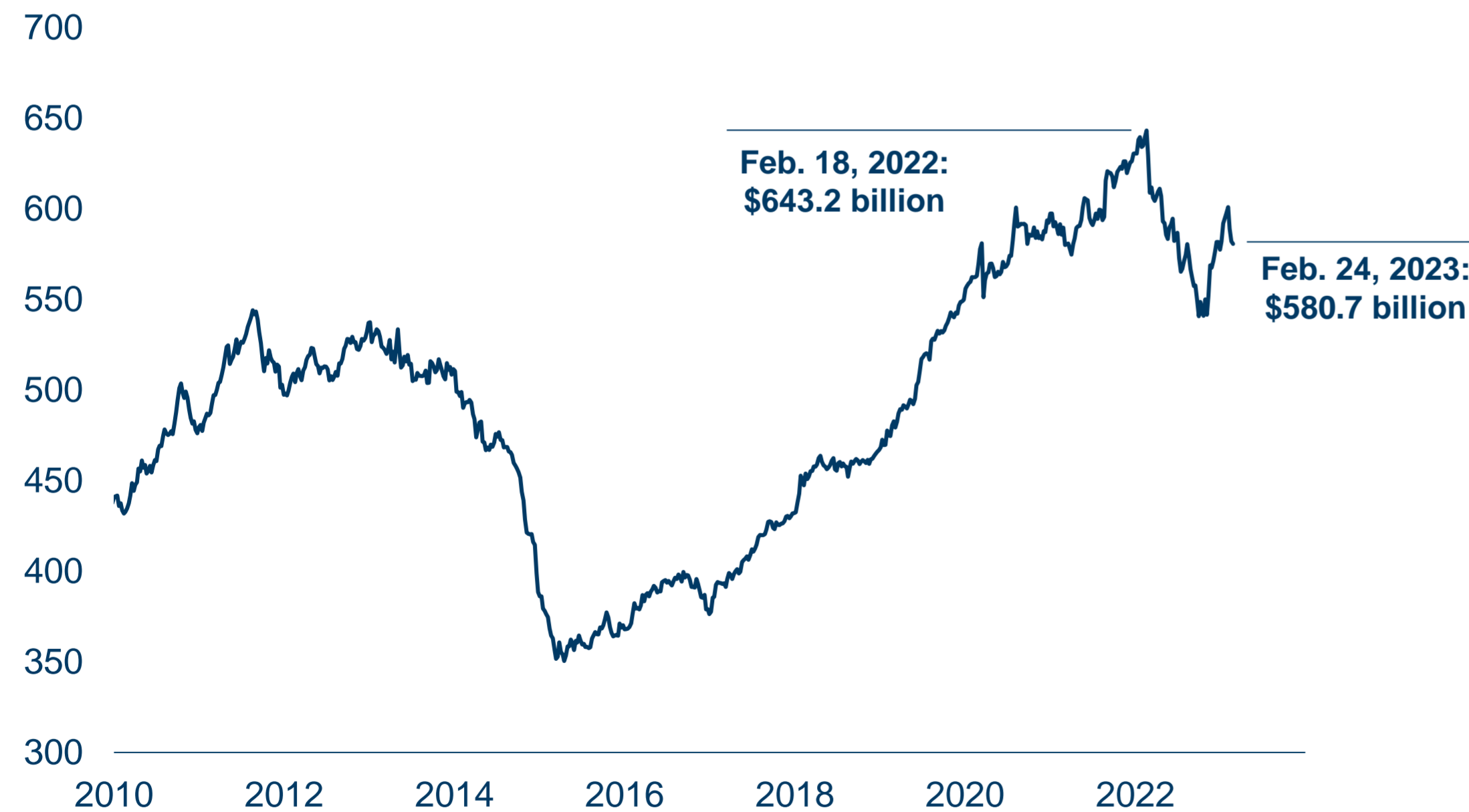


**Sanctions have had a big impact on reserves and policy space is shrinking.**

## A significant share of international reserves has been frozen.

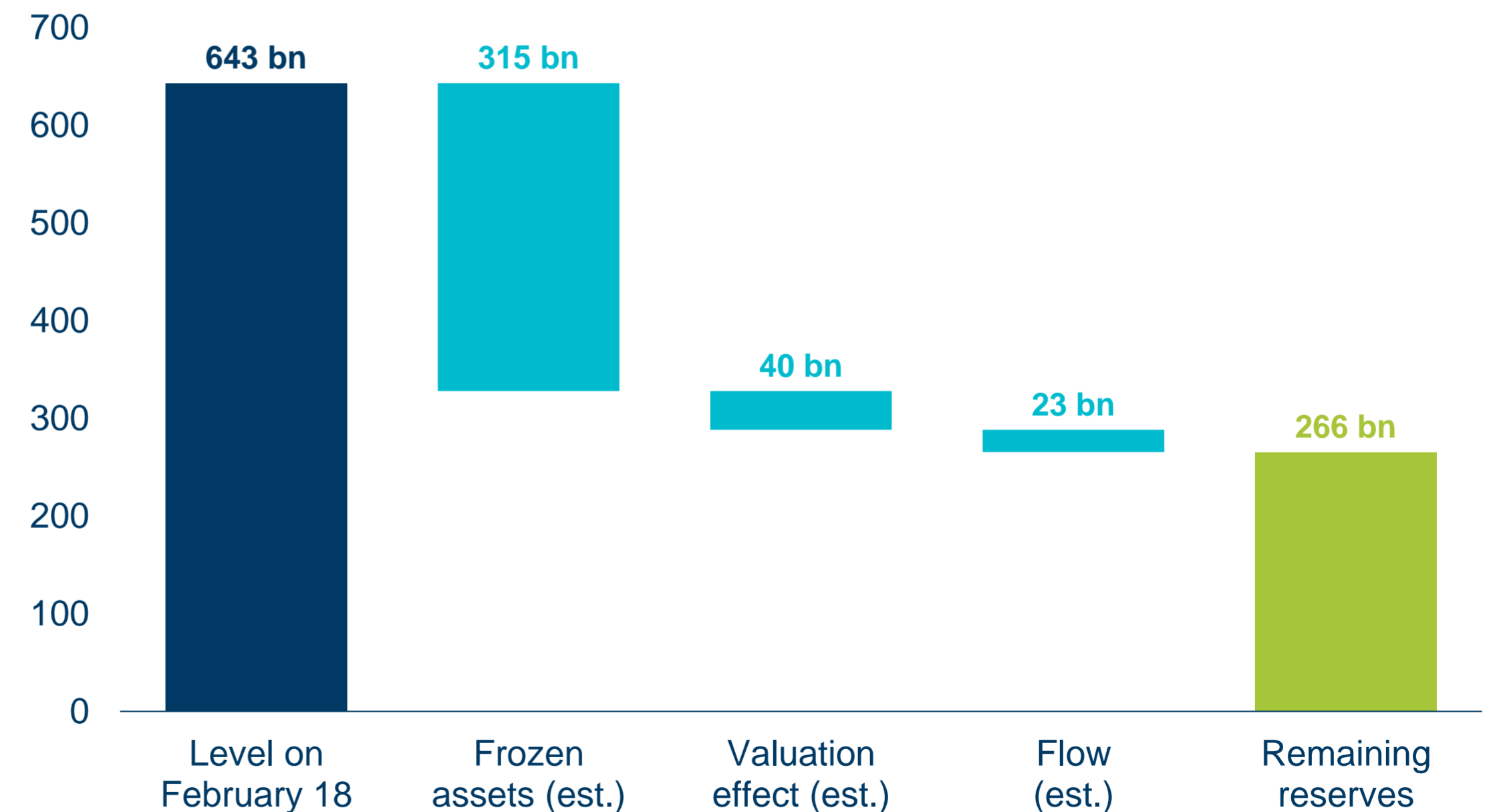
- Before the invasion, Russia held \$634 billion in international reserves, part of what is described as “Fortress Russia”.
- However, we estimate that around \$315 billion were geographically located in countries that froze CBR assets.
- Valuation effects due to the strong U.S. dollar have further reduced the stock—although this reversed somewhat recently.

Reserves, in U.S. dollar billion



Source: Bank of Russia

Change in reserves, in U.S. dollar billion

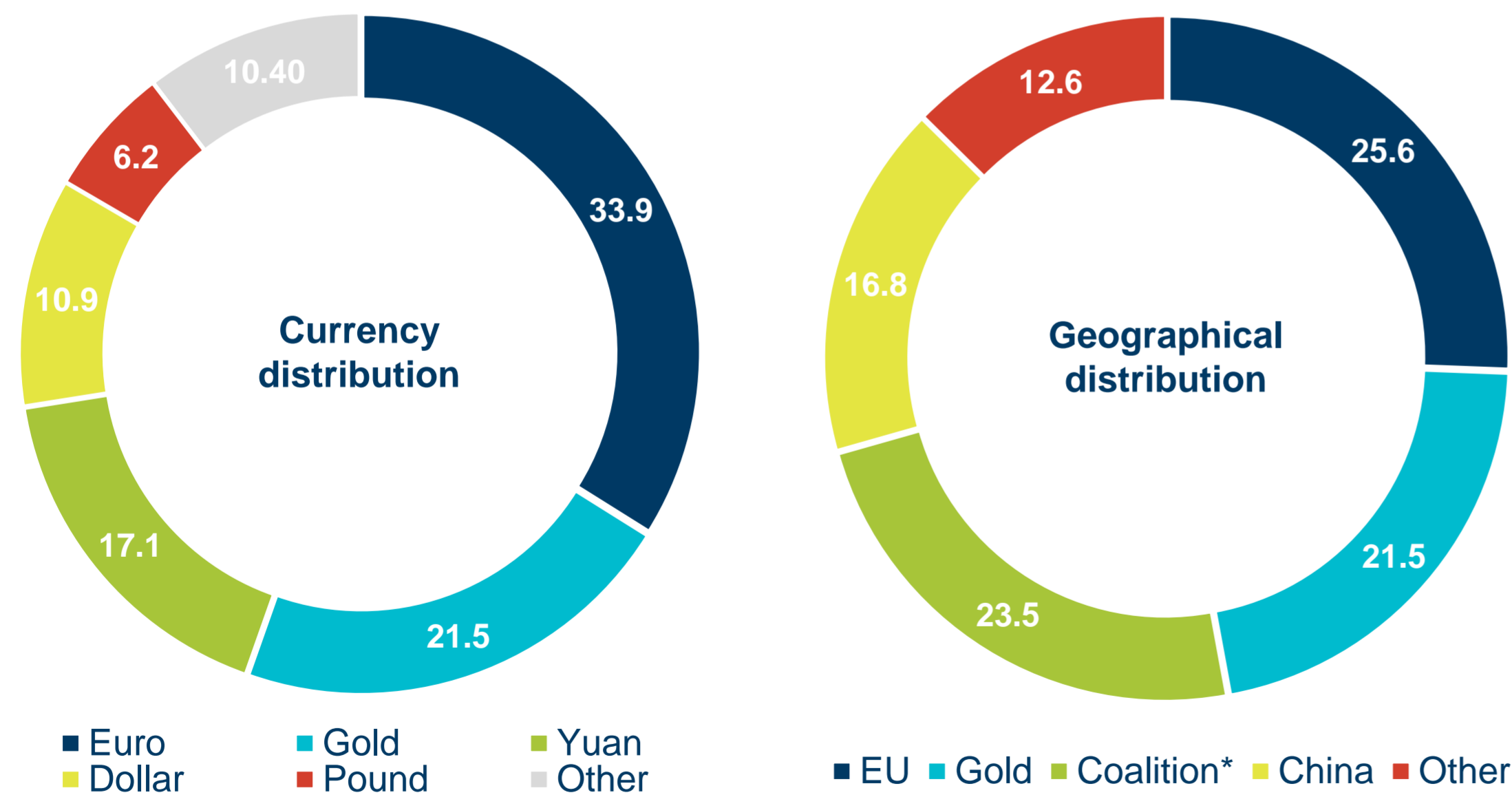


Source: Bank of Russia, KSE Institute

## The quality of the remaining reserves is also a challenge.

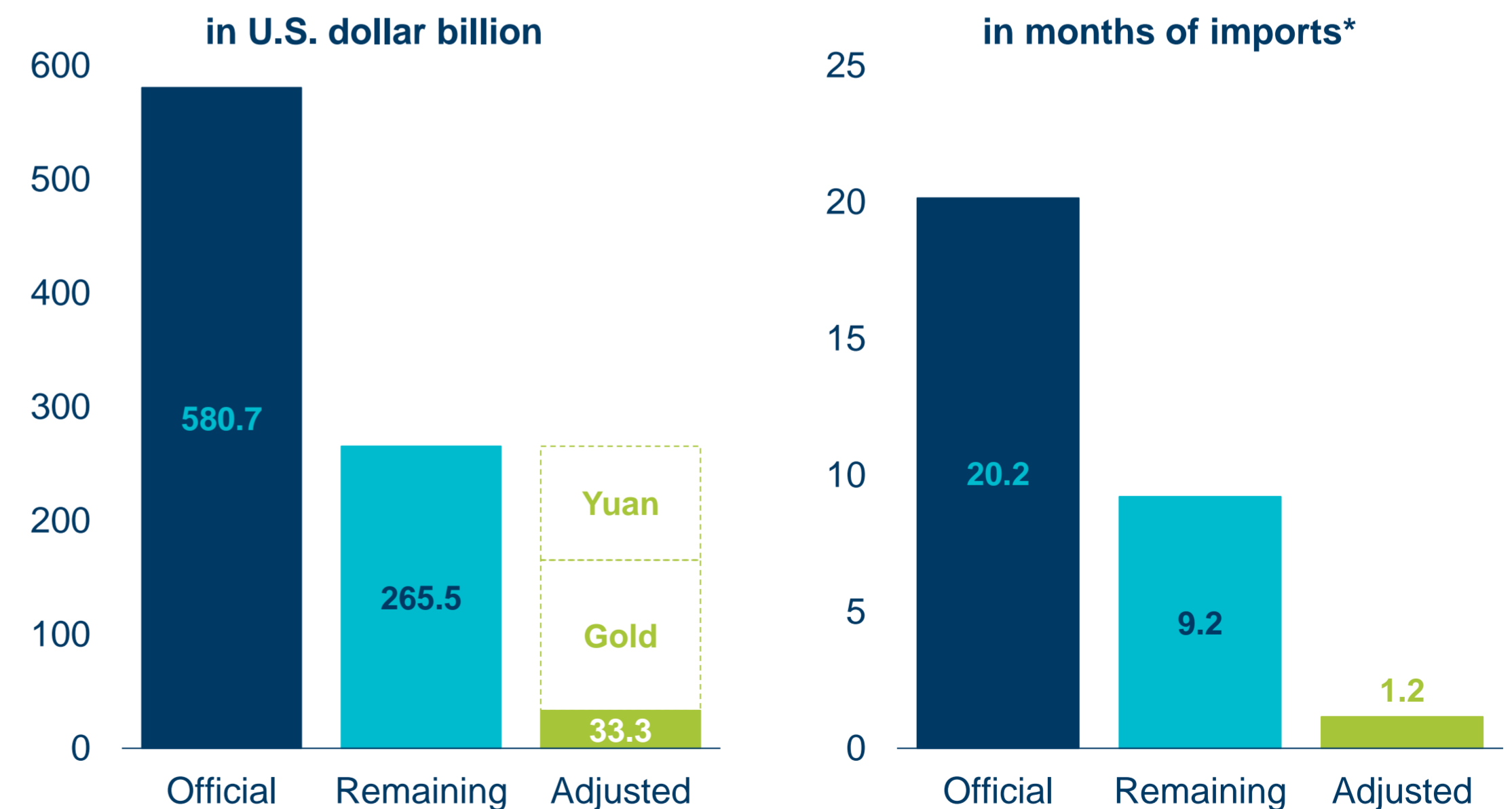
- In addition, we believe that the situation is even more challenging due to the composition of the remaining assets.
- A significant share—yuan-denominated assets and gold—cannot be easily converted, at least at scale, into G7 currencies.
- As such currencies are required to make external payments, overall reserve adequacy is indeed quite fragile.

Distribution of reserve assets as of December 2021, in %



Source: Bank of Russia \*includes Canada, Japan, UK, and US

Adequacy of international reserves

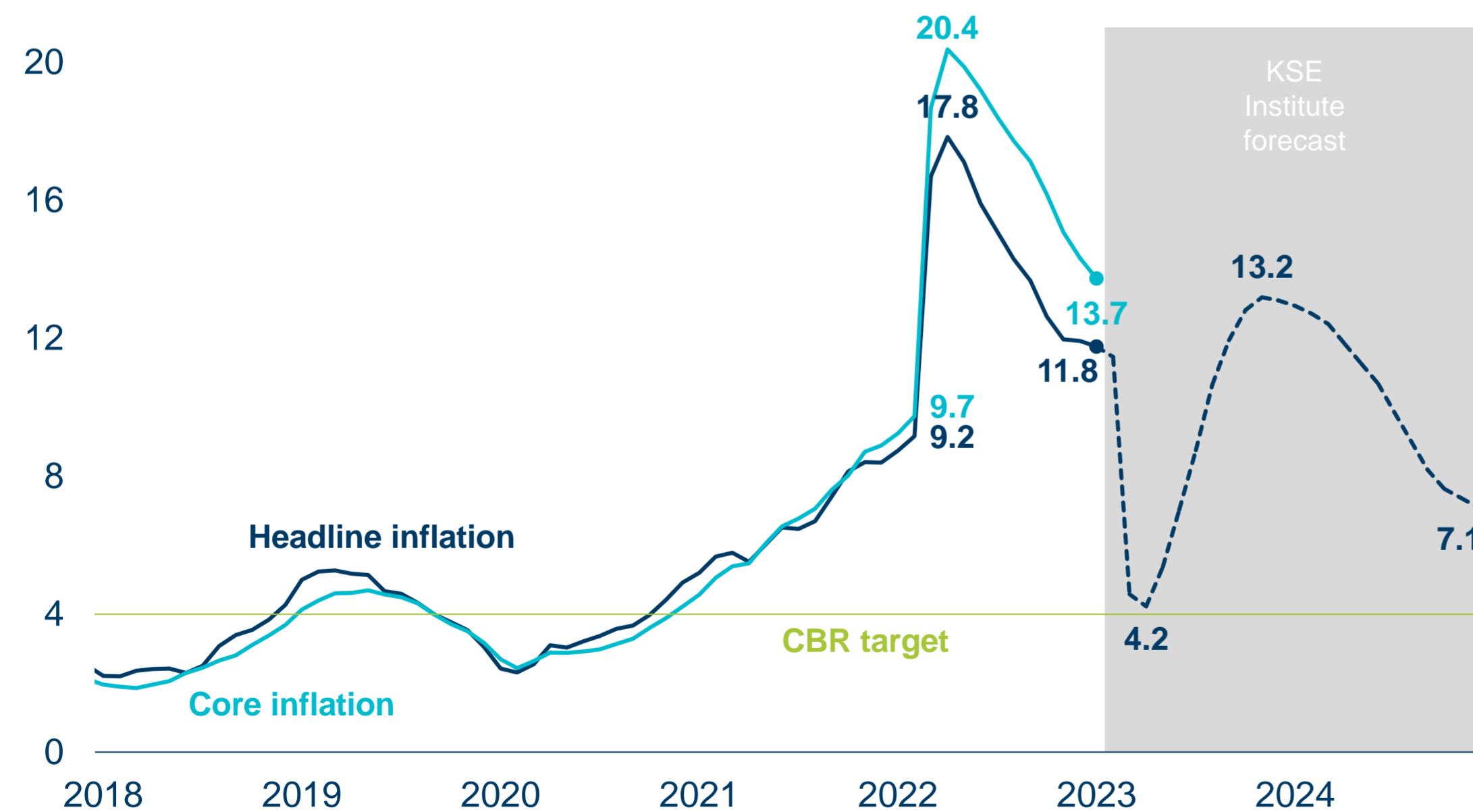


Source: Bank of Russia, KSE Institute \*2022Q4 imports of goods and services

## Rising inflation will trigger monetary policy tightening in the coming months.

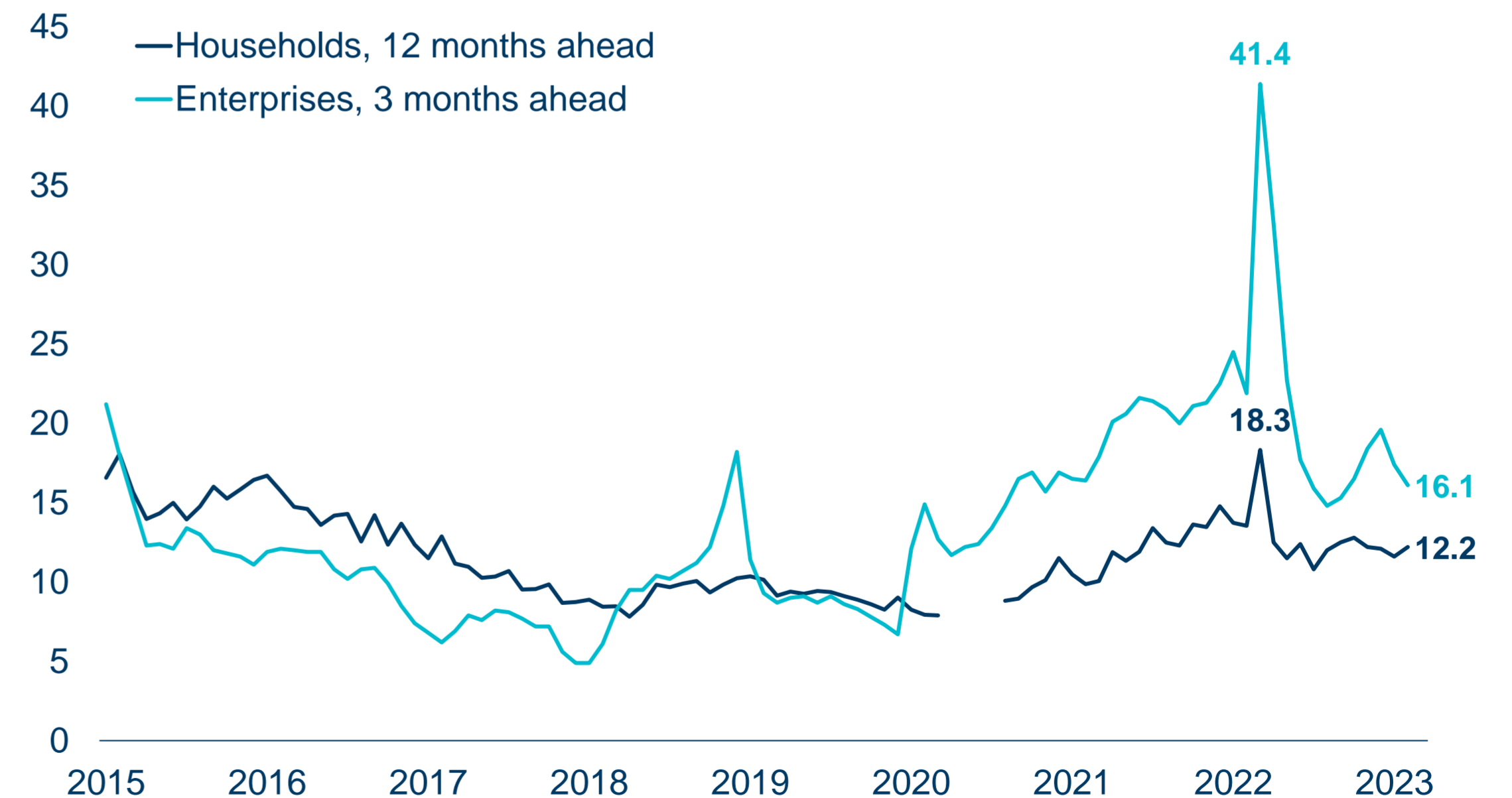
- We expect that the weaker external environment will weigh on the ruble and, in turn, increase inflationary pressures.
- Headline inflation will likely move back into double-digit territory by late 2023/early 2024 if this scenario materializes.
- Recent data releases show that inflation expectations, especially those of enterprises, are not well-anchored.

**Inflation forecast, in % year-over-year**



Source: Bank of Russia, KSE Institute

**Inflation expectations, in %**



Source: Bank of Russia

## A less supportive external environment will also put pressure on the ruble.

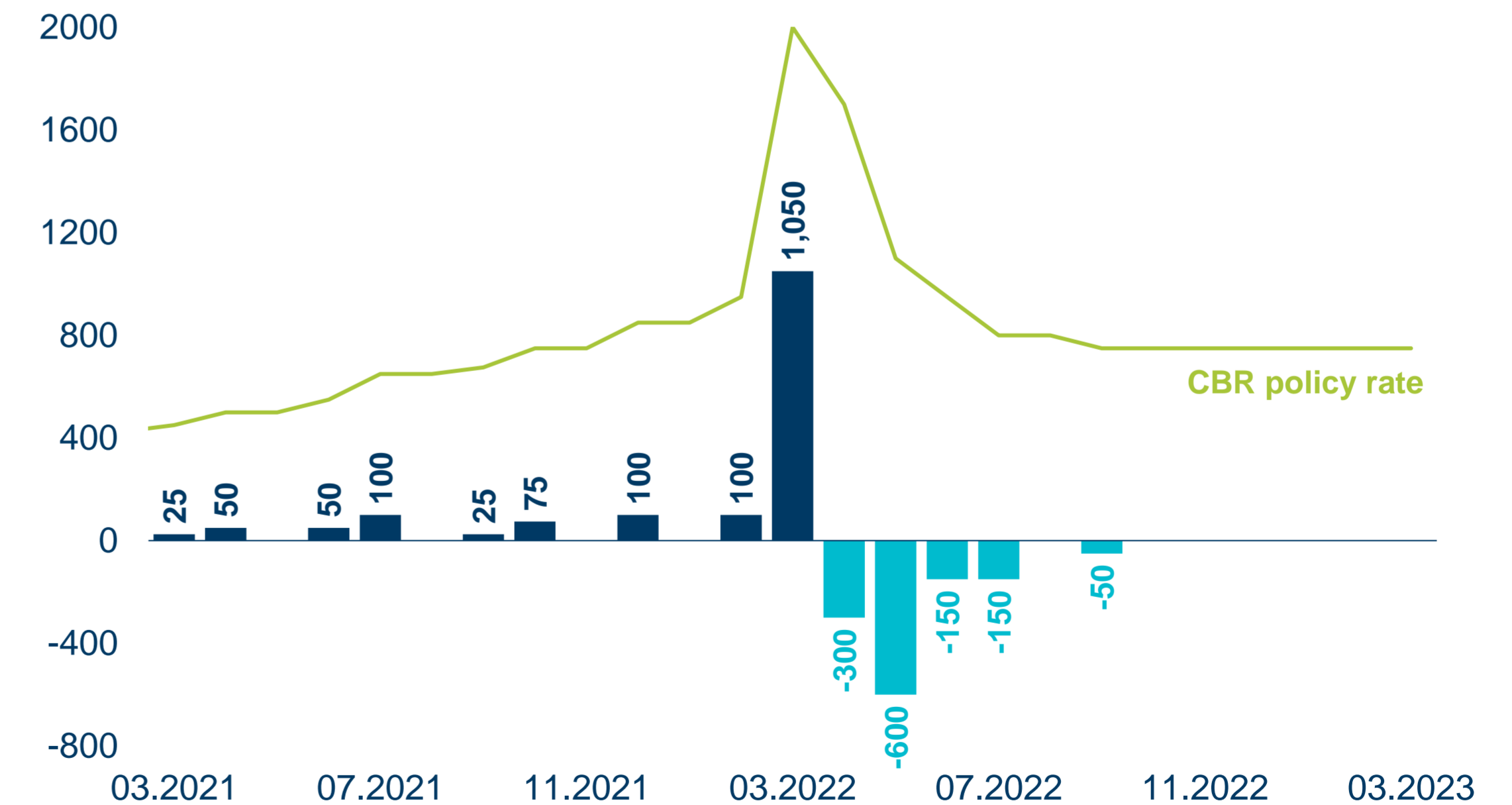
- As the external environment turned less supportive, the ruble started to weaken again (by ~35% since October).
- While a weaker ruble will support fiscal revenues, it represents a risk to price stability and could trigger CBR rate hikes.
- In fact, we expect that the central bank will have to raise interest rates in 2023H1, possibly by 300bps.

Ruble-U.S. dollar exchange rate



Source: Bank of Russia, KSE Institute

CBR policy rate and MPC decisions, in bps



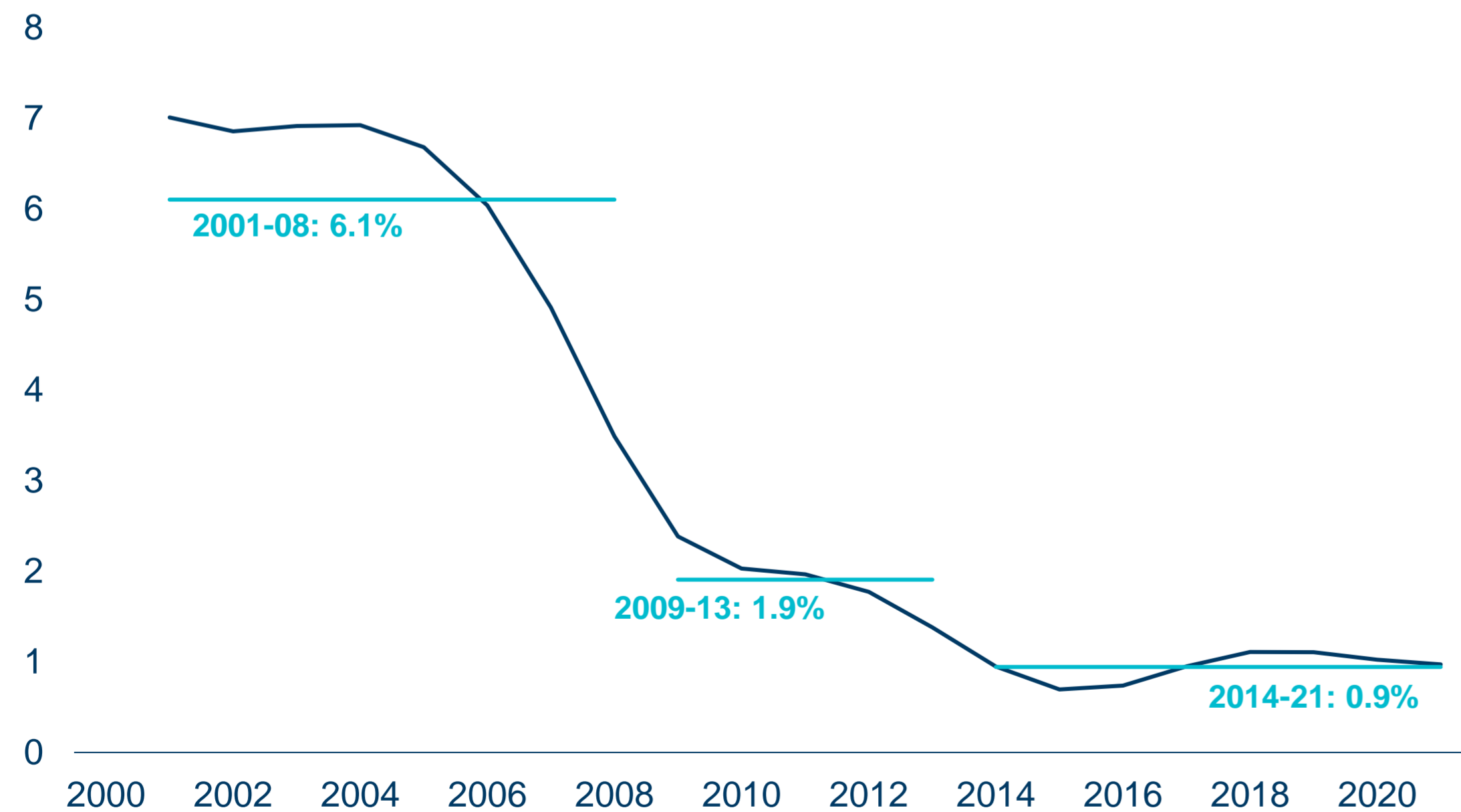
Source: Bank of Russia, KSE Institute

**Russia's economy is facing an  
extended period of stagnation.**

## Low productivity growth has weighed on potential GDP for years.

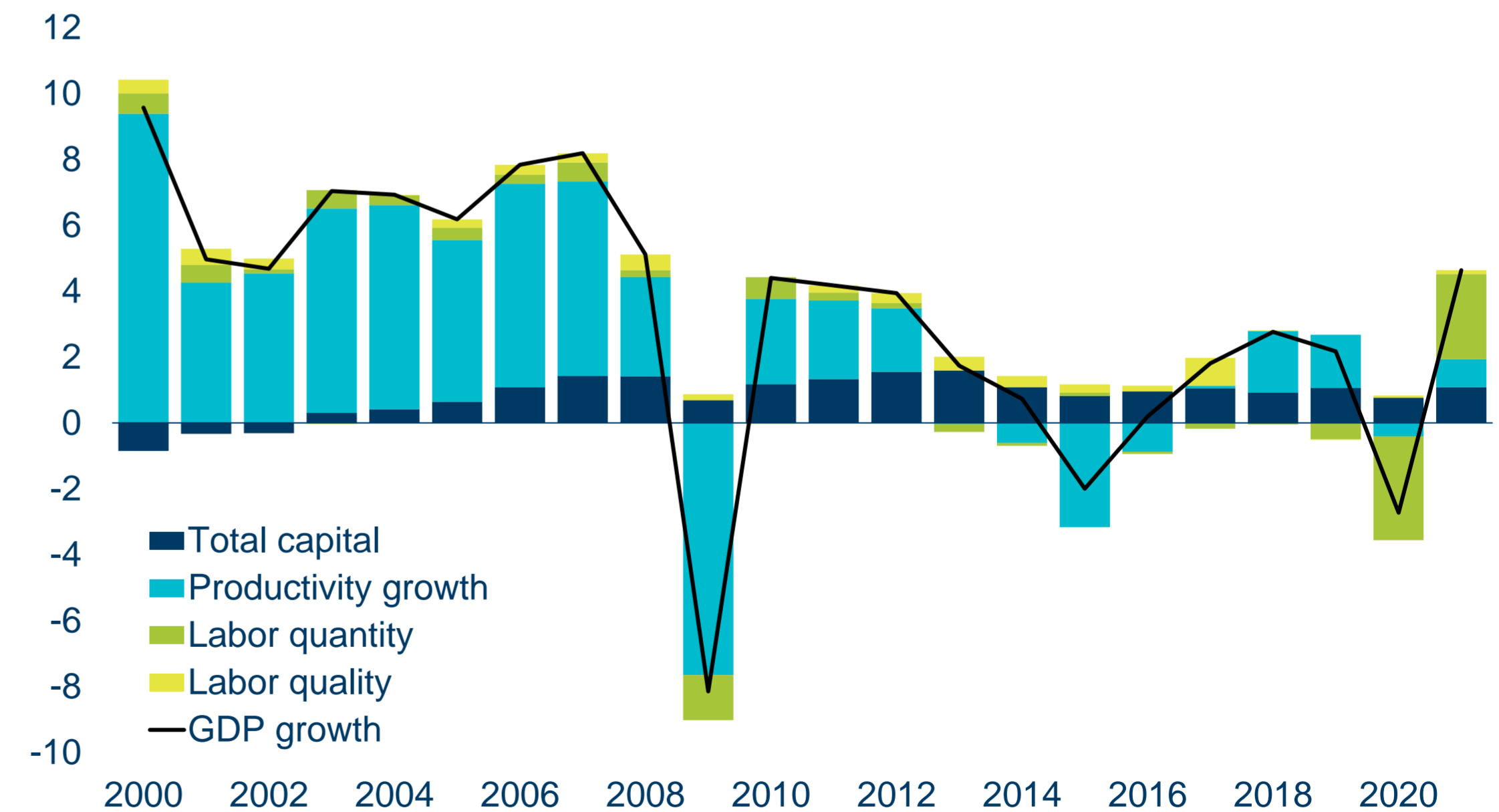
- Russia's economy has experienced a pronounced decline in potential growth, to around 1% by 2021.
- An initial decline in the aftermath of the global financial crisis was followed by another 50% drop post-2014.
- The main driver appears to be markedly weaker growth of total factor productivity in recent years.

Potential GDP growth, in % year-over-year\*



Source: Rosstat, KSE Institute \*calculated using H-P filter

Contributions to GDP growth, in percentage points

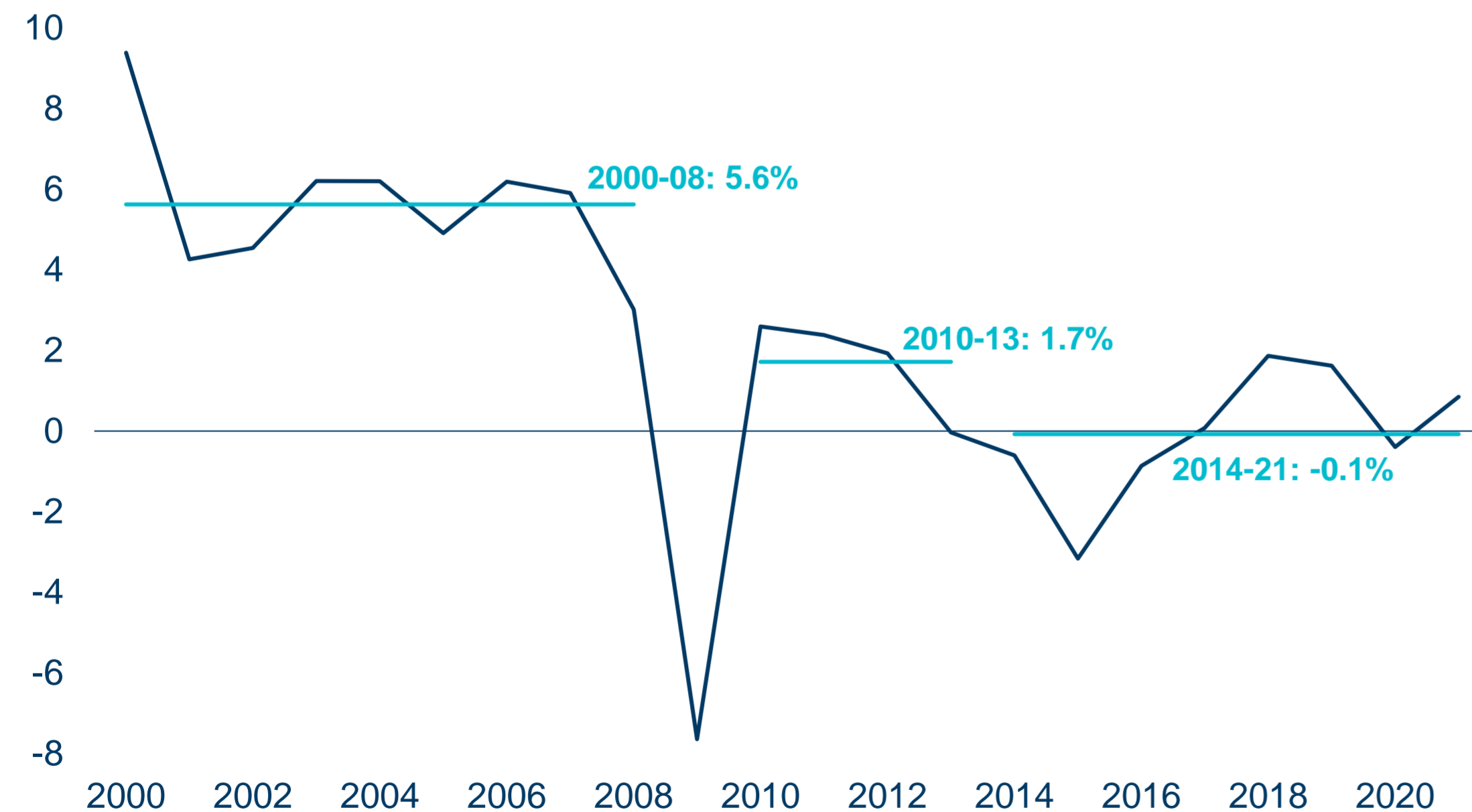


Source: Conference Board, KSE Institute

## Higher emigration will further weaken prospects going forward.

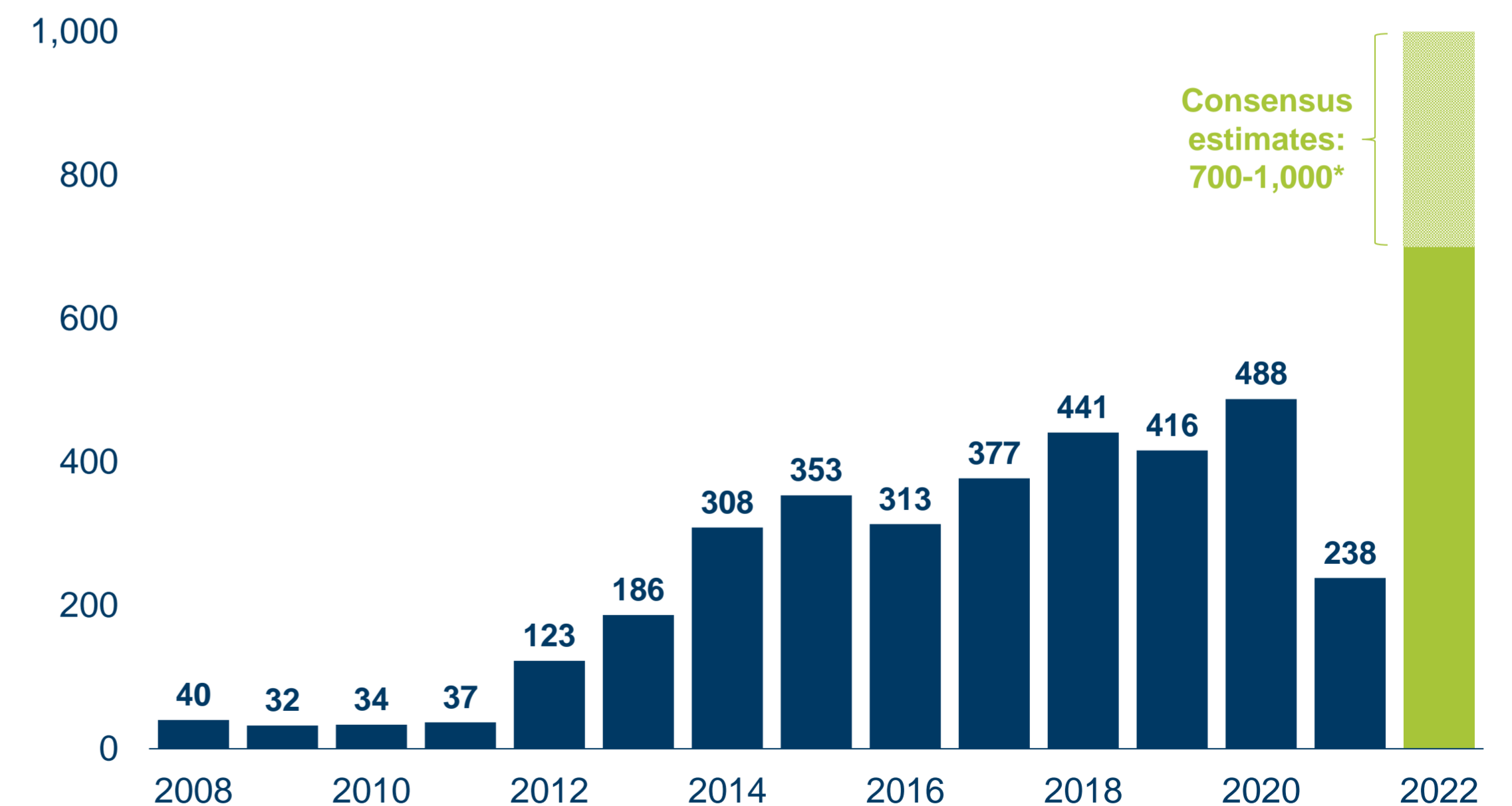
- Productivity growth was essentially absent post-2014 and will likely turn negative due to the war and sanctions.
- At the same time, the Russian economy is set to suffer from a lack of skilled workers as emigration picks up sharply.
- Altogether, we expect an extended period of economic stagnation, with major impacts on real incomes.

Total factor productivity growth, in % year-over-year



Source: Conference Board, KSE Institute

Emigration from Russia, in thousand persons



Source: Rosstat, KSE Institute \*publicly-available estimates from media reporting

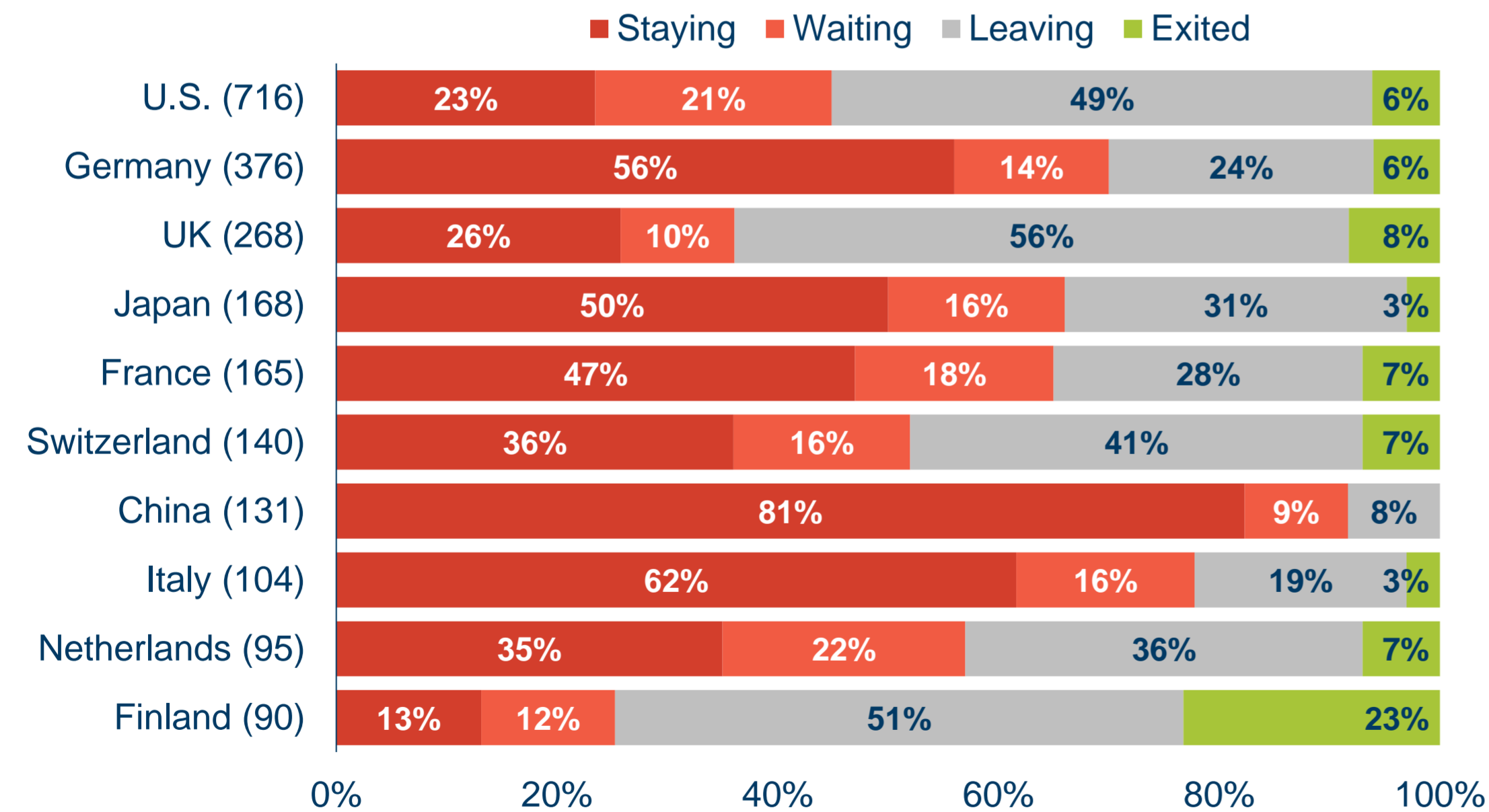


## The departure of foreign companies presents another challenge.

- Our analysis shows that only 6% of foreign companies have left Russia, while 37% are in the process of leaving.
- Trends differ considerably among countries with Chinese, Italian, and German businesses most hesitant to depart.
- Many companies are still biding their time and steps should be taken to accelerate their exit.

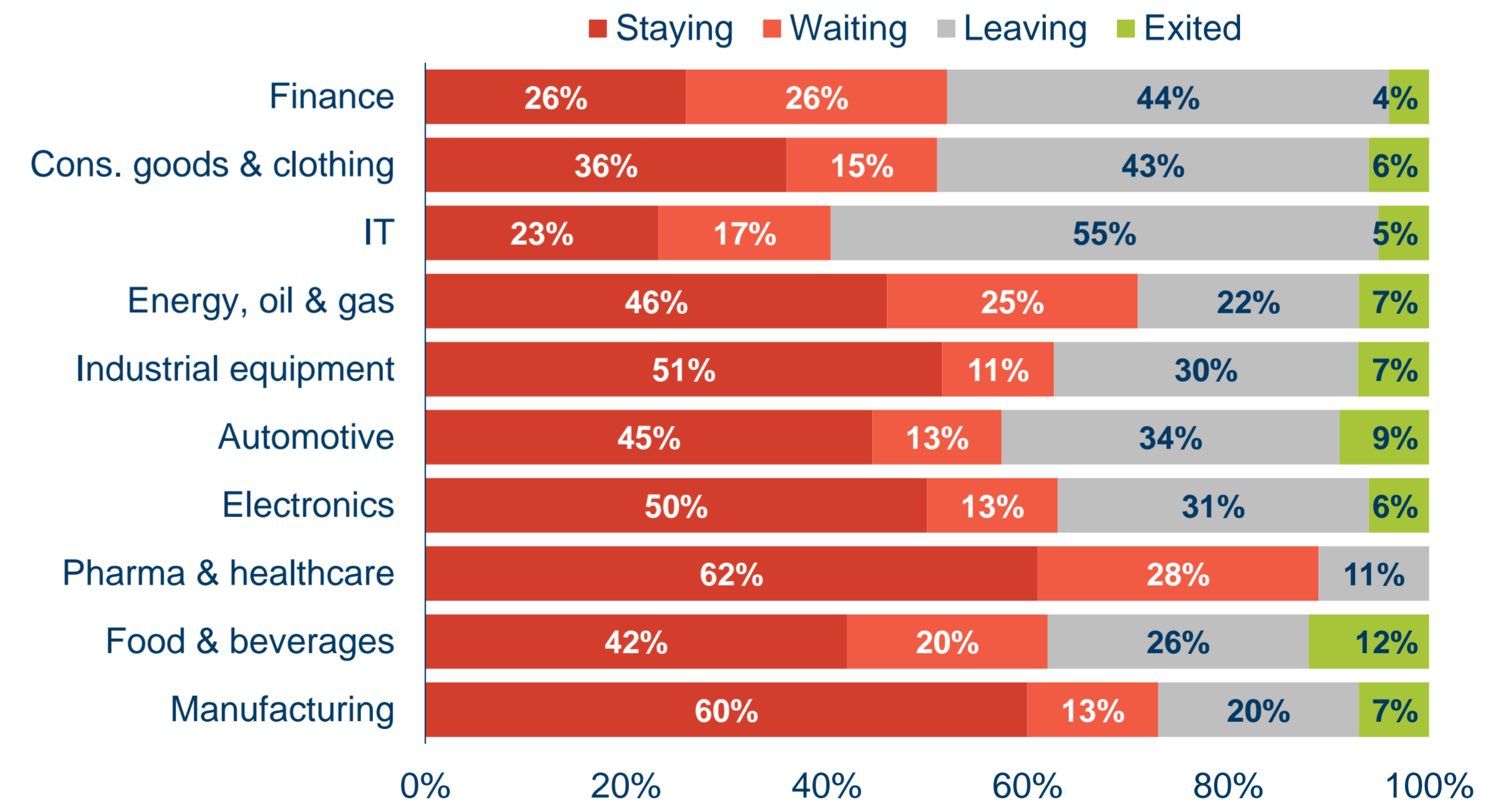
[Visit KSE Institute’s “Leave Russia” project website](#)

Status of foreign companies in Russia by country, in %\*



Source: KSE Institute \*figure shows countries with largest number of companies

Status of foreign companies in Russia by sector, in %\*



Source: KSE Institute \*figure shows sectors with largest number of companies

**New targeted sanctions would have a meaningful impact at this critical junction.**

## **KSE Institute proposal for additional sanctions on Russia**

We believe that Russia's economy is approaching a turning point in 2023H1. Ukraine's allies should take advantage of increasing vulnerabilities, significantly step-up pressure on the country, and bring its brutal invasion of Ukraine to an end.

To this end, we propose several measures that, together, would significantly reduce Russia's ability to continue the war.

1. Price cap on Russian crude oil of \$50/barrel at the next review and, ultimately, \$30/barrel
2. Price caps on products in line with the crude cap and pre-invasion spreads between product and crude prices
3. Ban of natural gas imports into the EU via pipelines controlled by Russia; ban of all LNG imports into the EU
4. Full sanctions on Gazprom and Russian oil companies; personal sanctions on board members
5. Extension of financial sector sanctions to all Russian banks, including Gazprombank
6. Creation of deadlines by regulators for exit of foreign financial institutions from Russia
7. Full sanctions on all military-industrial enterprises as well as Rosatom; personal sanctions on board members
8. Complete ban on mining products, ferrous metals, and diamonds from Russia
9. Price cap on Russian fertilizer exports, except if exported through Odessa
10. Significant strengthening of monitoring and enforcement capacities

[Read KSI Institute's latest sanctions impact assessment and action plan for 2023 "One Year of War".](#)